

Application of the City of Chinook
Water Reservation No. 40J LO84490-00

II. FINDINGS OF FACT

A. FINDINGS ON THE QUALIFICATIONS OF THE CITY OF CHINOOK TO RESERVE WATER (MCA §85-2-316(1)(1993); ARM 36.16.107B(1)(a)).

1. The City of Chinook is an incorporated municipality and a subdivision of the State of Montana (Chinook, Application (Chin-App.) p. 1; MCA §85-2-316(1); ARM 36.16.107B(1)(a)).

2. The City of Chinook has applied for a water reservation of one well to provide 200 acre-feet/year (af/y) of water with a maximum diversion rate of 0.504 million gallons per day (mgd) to supplement existing surface diversions from the Milk River. Chinook also requests a secondary reservation of 600 AF of surface water from the Milk River to be diverted to storage during the winter period from September 30 to June 15 (Chin-App., p. 4).

3. The City of Chinook requested a water reservation to reserve water in the event that contracts for water with the U.S. Bureau of Reclamation (BOR) are not renewed (Chin-App., p. 20).

B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY THE CITY OF CHINOOK (MCA §85-2-316(4)(a)(1993); ARM 36.16.107B(1)(b)).

4. The City of Chinook seeks to provide municipal water for existing uses and future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply (Chin-App., p. 7).

5. The purpose of the reservation is to provide water for municipal and industrial uses (Chin-App., p. 1). Municipal and industrial uses are beneficial uses of water in Montana (MCA §85-2-102(2)(a), ARM 36.16.102(3); ARM 36.16.107B(1)(b)).

C. FINDINGS ON THE NEED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF CHINOOK (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

6. In 1936, Chinook entered into a forty-year contract with the BOR for 700 af/y. This contract was renewed for an additional 40 year term in 1976 (Chin-App., Appendix A, p. 1). The record indicates a reasonable likelihood that BOR will continue the city's water contract. In 1988, 400 af/y was used from this source, leaving a 300 af/y margin in the contract (Chin-App., p. 20).

7. The projected service area population for the year 2035 will require 606 af/y at a usage rate of 200 gpcd, which assumes a nine percent increase in consumption from the current usage rate of 184

gpcd., (Chin-App., p. 19). The City's current contract with the BOR exceeds the projected service area needs by 94 af/y.

8. The Milk River mainstem, downstream of Fresno Reservoir, is presently closed to new appropriations from June 15 through September 30 (Guenthner, Obj., Pre-filed Dir., p. 1).

9. Water held in contract by the City of Chinook is not available for appropriation by competing agricultural, industrial, and instream users (Chin-App., Appendix A).

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF CHINOOK (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

10. The method of determining the amount of water requested for a water reservation by the City of Chinook was based on a forecast of its future population to the year 2035 along with the estimated amount of water used per person (Chin-App., p. 19). The methodology used by the City of Chinook projected an average annualized, compounded population, growth rate of approximately .1 percent (Chin-App., p. 11). The 1990 population of the City of Chinook was 1,660 (Chin-App., p. 12). The City of Chinook's population forecast for the year 2035 was 1,829 people (Chin-App., p. 12; DEIS, @ K-3).

11. Chinook's average usage of 184 gallons per person daily is lower than the typical basin municipal use rate of 250 gallons per person daily (Chin-App., p. 14). Chinook presently meters 100 percent of its users (Chin-App., p. 36).

12. The water use efficiencies associated with the municipal and industrial uses by the City of Chinook are reasonable (ARM 36.16.107B(3)(b)).

13. No other cost-effective measure could be taken within the reservation term to increase the use efficiency by the City of Chinook and lessen the amount of water required for the purpose of the reservation (ARM 36.16.107B(3)(b)).

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE CITY OF CHINOOK IS NOT IN THE PUBLIC INTEREST (MCA §85-2-316(4)(a)(iv)(1993); ARM 36.16.107B(4)).

14. Groundwater contributions to the Milk River to supplement diversions at Chinook's treatment facility may result in slight increases in Total Dissolved Solids (TDS) concentrations in the Milk River (Chin-App., p. 33).

15. Historically, groundwater has not been used as a municipal source in the Chinook area due to poor water quality and limited yields (Chin-App., p. 23).

16. Chinook is requesting a reservation of 600 af/y diverted to storage from the Milk River with annual diversions occurring from September 30, through June 15 (Chin-App., p. 3).

17. The Fort Belknap Indian Tribe is a senior water user on the Milk River and typically diverts water for the Fort Belknap Indian Irrigation Project (FBIIP) beginning April 15 annually (Davis, Obj., Reb., p. 1).

18. If the tribes developed 14,000 new acres under their reserved right, it is currently estimated that they would be short eleven percent on an average annual basis and eighty-two percent short during an extremely dry year (BOR, Obj., Pre-filed Dir., Exh. 2, p. S-1).

19. Milk River irrigators face significant water shortages in 6 years out of 10. These shortages will increase by an additional 28,000 acre-feet in the future when Canada and the Fort Belknap Reservation make use of their legal share of the water (BOR, Obj., Pre-filed Dir., Exh. 2, p. S-1).

III. CONCLUSIONS OF LAW

1. City of Chinook is a qualified applicant for a water reservation (MCA §85-2-316(1)(1993)).

2. The purpose of the City of Chinook's application is a beneficial use (MCA §85-2-316(4)(a)(i)(1993); ARM 36.16.107B(1)(b)).

3. The City of Chinook has not established the need for the surface water diversion from the Milk River. The City's contract with the BOR for storage water in Fresno Reservoir is not at risk of consumption by other in-state water users. Chinook has not established that there is a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its reservation (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

4. The methodologies and assumptions used by the City of Chinook are suitable and accurate under present conditions (ARM 36.16.107B(3)(a)).

5. Based on a weighing and balancing of the evidence, the reservation by the City of Chinook is not in the public interest. Water in the Milk River is typically unavailable to satisfy the needs of current users. This reservation may adversely affect the rights of senior water rights (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(8)).

6. The Board may grant, deny, modify, or condition any reservation applied for. In no case may the Board make a reservation for more than the amount applied for (MCA §85-2-316).

7. The Board has no authority under the reservation statutes or any other statutes to determine, or alter any water right that is not a reservation (MCA §85-2-316(14)).

8. The City of Chinook's water reservation, as applied for, may adversely affect senior water rights (ARM 36.16.107B(8)).

IV. ORDER

1. The water reservation for the city of Chinook is denied.

Application of the City of Circle
Water Reservation No. 40P L084492-00

II. FINDINGS OF FACT

A. FINDINGS ON THE QUALIFICATIONS OF THE CITY OF CIRCLE TO RESERVE WATER (MCA §85-2-316(1)(1993); ARM 36.16.107B(1)(a)).

1. The City of Circle is an incorporated municipality and a subdivision of the State of Montana (Circle Application (Cir-App.) p. 2; MCA §85-2-316(1); ARM 36.16.107B(1)(a)).

2. The City of Circle has applied for a water reservation of 78 acre-feet/year (af/y) of water with a maximum diversion rate of .40 millions gallons a day (mgd) to be diverted from one groundwater well located within the Circle city limits for year round use (Cir-App., p. 3).

3. The City of Circle requests a water reservation to meet future demands by municipal users (Cir-App., p. 1).

B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY THE CITY OF CIRCLE (MCA §85-2-316(4)(a)(1993); ARM 36.16.107B(1)(b)).

4. The City of Circle seeks to provide municipal water for future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply (Cir-App., p. 5).

5. The purpose of the reservation is to provide water for municipal uses (Cir-App., p. 1). Municipal uses are beneficial uses of water in Montana (MCA §85-2-102(2)(a); ARM 36.16.102(3); ARM 36.16.107B(1)(b)).

C. FINDINGS ON THE NEED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF CIRCLE (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

6. The city has constructed four wells historically, two of those wells remain in service. Over time, these wells will continue to decrease in yield as the well screens becomes plugged with iron encrustation and bacteria growth. These wells will eventually require replacement (Cir-App., p. 17).

7. A reservation is the only means to obtain an early priority date for water that will be needed to meet projected municipal growth. In the future, water may be appropriated by competing agricultural, industrial, and instream users (Cir-App., p. 5-6).

8. It is important that the City of Circle have a water reservation to meet future municipal water demands in order for the community to grow and develop (Cir-App., p. 6).

9. Competing water uses may prevent the City of Circle from obtaining or perfecting a water use permit in the future. Without a reservation, the City of Circle may have to go through a costly process of buying or condemning existing water rights to meet increasing demands (DEIS, p. 187).

10. The city of Circle could lose existing, unused water rights necessary for future beneficial uses in an adjudication between competing water users. (Cir-App., p. 18).

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF CIRCLE (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

11. The method of determining the amount of water requested for a water reservation by the city of Circle was based on the amount of water required to satisfy the needs of the historical peak population. Circle's historical peak population of 1,117 persons occurred in 1960 (Cir-App., p. 7).

12. The City of Circle's distribution system is in good condition and does not experience any significant loss in the system (Cir-App., p. 20).

13. The City of Circle's average water use rate is 137 gallons per capita per day (gpcd). Peak usage rate in Circle is currently 418 gpcd. The 137 gpcd use rate is less than the typical basin use rate of 250 gallons per person daily (Cir-App., pp. 10-11).

14. Circle is currently 87 percent metered. Expansion to 100 percent metering is planned (Cir-App., p. 33). The efficiencies associated with the municipal uses by the City of Circle are reasonable (ARM 36.16.107B(3)(b)).

15. No other cost-effective measure could be taken within the reservation term to increase the use efficiency by the City of Circle and lessen the amount of water required for the purpose of the reservation (ARM 36.16.107B(3)(b)).

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE CITY OF CIRCLE IS IN THE PUBLIC INTEREST (MCA §85-2-316(4)(a)(iv)(1993); ARM 36.16.107B(4)).

16. Benefits of the City of Circle's water reservation were calculated on a willingness-to-pay basis. Communities in the Middle Missouri Basin consider \$3.00/1,000 gallons of water to be an upper limit of the willingness to pay (Cir-App., p. 27). Circle municipal users are currently paying \$2.08/1,000 gallons (Cir-App., p. 27).

17. The additional water provided by the water reservation will cost approximately \$2.80/1,000 gallons of water. This rate is lower than the assumed upper limit of \$3.00/1,000 gallons (Cir-App., p. 29).

18. The direct benefits of the City of Circle's water reservation exceed the direct costs (ARM 36.16.107B(4)(a)).

19. Indirect benefits of the City of Circle's reservation may include secondary economic benefits to the community and to the state, expanding both the property and income tax base from increased population (Cir-App., p. 29).

20. Indirect costs of the reservation may include loss of opportunity for other development and increased administrative costs. While not quantified, these costs are minor (Cir-App., p. 29).

21. There is no significant adverse environmental impact associated with the use of the City of Circle's water reservation. The effects of individual municipal water reservation depletions on water quality have not been quantified, but should be very small. Resulting health risks have not been quantified. No other non-quantifiable benefits or costs were identified (Cir-App., p. 29).

22. Net benefits of granting the City of Circle's water reservation exceed the net benefits of not granting the water reservation, and the project is economically feasible (ARM 36.16.107B(4)(b); ARM 36.16.102(9)).

23. The City of Circle identified two alternative sources of water for future development, a surface water storage project and the development of alluvial wells in the Redwater River. These alternatives would not provide greater net benefits than the water reservation and are not reasonable (Cir-App., pp. 22-25); ARM 36.16.107B(4)(c)).

24. Failure to reserve water for future municipal use by the City of Circle is likely to result in an irretrievable loss of a resource development opportunity (Cir-App., p. 30; ARM 36.16.107B(4)(d)).

25. As conditioned, the City of Circle's water reservation will have no significant adverse impact to public health, welfare, or safety (ARM 36.16.107B(4)(e)).

F. OTHER FINDINGS RELATING TO BOARD DECISION (MCA §85-2-316(3)(B), (4)(a)(iv)(b), (5), (6), and (9)(e)(1993); ARM 36.16.107B(5) through (8)).

26. The water reservation by the City of Circle will be used entirely within the state and within the Missouri River Basin (Cir-App., p. 3; ARM 36.16.107B(5) and (6)).

27. The City of Circle has identified a management plan for the design, development, and administration of its water reservation (Cir-App., p. 33-36).

28. The City of Circle is capable of exercising reasonable diligence towards feasibly financing the project and applying reservation water to beneficial use in accordance with the management plan (ARM 36.16.107B(7)).

29. The priority date of the City of Circle's water reservation is July 1, 1985 (MCA §85-2-331(4)).

30. As conditioned, the City of Circle's water reservation will not adversely affect any senior water rights (ARM 36.16.107B(8)).

III. CONCLUSIONS OF LAW

1. City of Circle is a qualified applicant for a water reservation (MCA §85-2-316(1)(1993)).

2. The purpose of the City of Circle's application is a beneficial use (MCA §85-2-316(4)(a)(i)(1993); ARM 36.16.107B(1)(b)).

3. The need for the City of Circle has been established. The City has established that there is a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its reservation (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

4. The methodologies and assumptions used by the City of Circle are suitable and accurate under present conditions (ARM 36.16.107B(3)(a)). As modified, the City of Circle has established the amount of water needed to fulfill its reservation (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

5. Based on a weighing and balancing of the evidence, the reservation by the City of Circle, as modified herein, is in the public interest (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(4)).

6. Lower Missouri River water reservations approved by the Board shall have a priority date of July 1, 1985 (MCA §85-2-331(4)). The Board may determine the relative priorities of all reservations (MCA §85-2-316(a)(e)).

7. The Board may grant, deny, modify, or condition any reservation applied for. In no case may the Board make a reservation for more than the amount applied for (MCA §85-2-316).

8. The Board has no authority under the reservation statutes or any other statutes to determine, or alter, any water right that is not a reservation (MCA §85-2-316(14)).

IV. ORDER

1. Subject to all applicable modifications, conditions, and limitations (including but not limited to the conditions applied to consumptive use reservations in Exhibit A attached to this Order), the application of the City of Circle is granted for the following amount and flow of water: 78 acre feet per year at a rate of .40 million gallons per day.

2. The point of diversion and place of use are set forth in the reservation application of the City of Circle and by reference are made a part of this Order.

3. Relative to other reservations, the priority date of this reservation shall be ahead of any other non-municipal reservation granted with a priority date of July 1, 1985. The reservation shall have equal priority with all other reservations granted to all municipalities.

4. Any and all liability arising from the reservation or the use of the reservation is the sole responsibility of the applicant. By granting such reservations, the Board, on behalf of itself and the Department of Natural Resources and Conservation, assumes no liability.

Application of the City of Culbertson
Water Reservation No. 40S L077646-00

II. FINDINGS OF FACT

A. FINDINGS ON THE QUALIFICATIONS OF THE CITY OF CULBERTSON TO RESERVE WATER (MCA §85-2-316(1)(1993); ARM 36.16.107B(1)(a)).

1. The City of Culbertson is an incorporated municipality and a subdivision of the State of Montana (Culbertson Application (Culb-App.) p. 1; MCA §85-2-316(1); ARM 36.16.107B(1)(a)).

2. The City of Culbertson has applied for a water reservation of 365 acre-feet/year (af/y) of water with a maximum diversion rate of 0.44 million gallons per day (mgd) to be diverted from the Missouri River mainstem (Culb-App., p. 3).

3. The City of Culbertson requested a water reservation to meet future demands by municipal users (Culb-App., p. 1).

B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY THE CITY OF CULBERTSON (MCA §85-2-316(4)(a)(1993); ARM 36.16.107B(1)(b)).

4. The City of Culbertson seeks to provide municipal water for future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply (Culb-App., p. 5).

5. The purpose of the reservation is to provide water for municipal uses (Culb-App., p. 1). Municipal uses are beneficial uses of water in Montana (MCA §85-2-102(2)(a); ARM 36.16.102(3); ARM 36.16.107B(1)(b)).

C. FINDINGS ON THE NEED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF CULBERTSON (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

6. A reservation is the only means to obtain an early priority date for water that will be needed to meet projected municipal growth. In the future, water may be appropriated by competing agricultural, industrial, and instream users (Culb-App., p. 5).

7. It is important that the City of Culbertson have a water reservation to meet future municipal water demands in order for the community to grow and develop (Culb-App., p. 6).

8. Competing water uses may prevent the City of Culbertson from obtaining or perfecting a water use permit in the future. Without a reservation, the City of Culbertson may have to go through a costly process of buying or condemning existing water rights to meet increasing demands (Culb-App., p. 5).

9. The City of Culbertson could lose existing, unused water rights necessary for future beneficial uses in an adjudication between competing water users (Culb-App., pp. 18-19).

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF CULBERTSON (MCA §85-2-316(4) (a) (iii) (1993); ARM 36.16.107B(3)).

10. The method of determining the amount of water requested for a water reservation by the City of Culbertson was based on the amount of water required to satisfy the needs of the historical peak population. Culbertson's historical peak population of 1,090 people occurred in 1980 (Culb-App., p. 8).

11. Ninety percent of water services in Culbertson are metered at present. The city is working towards one-hundred percent metering as well as the replacement of older mains to reduce leakage (Culb-App., p. 31). The City of Culbertson's average water use rate is 189 gallons per capita per day (gpcd), (Culb-App., p. 12). The 189 gpcd use rate is less than the typical basin use rate of 250 gallons per person daily (Culb-App., p. 15).

12. The water use efficiencies associated with the municipal uses by the City of Culbertson are reasonable (ARM 36.16.107B(3)(b)).

13. No other cost-effective measure could be taken within the reservation term to increase the use efficiency by the City of Culbertson and lessen the amount of water required for the purpose of the reservation (ARM 36.16.107B(3)(b)).

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE CITY OF CULBERTSON IS IN THE PUBLIC INTEREST (MCA §85-2-316(4) (a) (iv) (1993); ARM 36.16.107B(4)).

14. Benefits of the City of Culbertson's water reservation were calculated on a willingness-to-pay basis. Communities in the Middle Missouri Basin consider \$3.00/1,000 gallons of water to be an upper limit of the willingness to pay. Culbertson municipal users are currently paying \$1.03/1,000 gallons (Culb-App., 25).

15. The additional water provided by the water reservation will cost approximately \$0.60/1,000 gallons of water (Culb-App., p. 25).

16. The direct benefits of the City of Culbertson's water reservation exceed the direct costs (ARM 36.16.107B(4)(a)).

17. Indirect benefits of the City of Culbertson's reservation may include secondary economic benefits to the community and to the state, expanding both the property and income tax base from increased population (Culb-App., p. 27).

18. Indirect costs of the reservation may include loss of opportunity for other development and increased administrative costs. While not quantified, these costs are minor (Culb-App., p. 25).

19. There is no significant adverse environmental impact associated with the use of the City of Culbertson's water reservation (Culb-App., p. 27). The effects of individual municipal water reservation depletions on water quality have not been quantified, but

would likely be very small (DEIS, p. 126). Resulting health risks have not been quantified. No other non-quantifiable benefits or costs were identified.

20. Net benefits of granting the City of Culbertson's water reservation exceed the net benefits of not granting the water reservation and the project is economically feasible (ARM 36.16.107B(4)(b); ARM 36.16.102(9)).

21. The City of Culbertson identified one alternative source of water for future development. This alternative proposed development of a Ranney Well System. This alternative would not provide greater net benefits than the water reservation, (Culb-App., p. 21), and is not reasonable (ARM 36.16.107B(4)(c)).

22. Failure to reserve water for future municipal use by the City of Culbertson is likely to result in an irretrievable loss of a resource development opportunity (Culb-App., p. 27; ARM 36.16.107B(4)(d)).

F. OTHER FINDINGS RELATING TO BOARD DECISION (MCA §85-2-316(3)(B), (4)(a)(iv)(b), (5), (6), and (9)(e)(1993); ARM 36.16.107B(5) through (8)).

23. The water reservation by the City of Culbertson will be used entirely within the state and within the Missouri River Basin (Culb-App., p. 1; ARM 36.16.107B(5) and (6)).

24. The City of Culbertson has identified a management plan for the design, development, and administration of its water reservation (Culb-App., pp. 28-31).

25. The City of Culbertson is capable of exercising reasonable diligence towards feasibly financing the project and applying reservation water to beneficial use in accordance with the management plan (ARM 36.16.107B(7)).

26. The priority date of the City of Culbertson's water reservation is July 1, 1985 (MCA §85-2-331(4)).

27. As conditioned, the City of Culbertson's water reservation will not adversely affect any senior water rights (ARM 36.16.107B(8)).

III. CONCLUSIONS OF LAW

1. City of Culbertson is a qualified applicant for a water reservation (MCA §85-2-316(1)(1993)).

2. The purpose of the City of Culbertson's application is a beneficial use (MCA §85-2-316(4)(a)(i)(1993); ARM 36.16.107B(1)(b)).

3. The need for the City of Culbertson has been established. The City has established that there is a reasonable likelihood that future in-state competing water uses would consume the water available

for the purpose of its reservation (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

4. The methodologies and assumptions used by the City of Culbertson are suitable and accurate under present conditions (ARM 36.16.107B(3)(a)). As modified, the City of Culbertson has established the amount of water needed to fulfill its reservation (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

5. Based on a weighing and balancing of the evidence, the reservation by the City of Culbertson, as modified herein, is in the public interest (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(4)).

6. Lower Missouri River water reservations approved by the Board shall have a priority date of July 1, 1985 (MCA §85-2-331(4)). The Board may determine the relative priorities of all reservations (MCA §85-2-316(a)(e)).

7. The Board may grant, deny, modify, or condition any reservation applied for. In no case may the Board make a reservation for more than the amount applied for (MCA §85-2-316).

8. The Board has no authority under the reservation statutes or any other statutes to determine, or alter, any water right that is not a reservation (MCA §85-2-316(14)).

IV. ORDER

1. Subject to all applicable modifications, conditions, and limitations (including but not limited to the conditions applied to consumptive use reservations in Exhibit A attached to this Order), the application of the City of Culbertson is granted for the following amount and flow of water: 365 af/year at a rate of 0.44 mgd.

2. The point of diversion and place of use are set forth in the reservation application of the City of Culbertson and by reference are made a part of this Order.

3. Relative to other reservations, the priority date of this reservation shall be ahead of any other non-municipal reservation granted with a priority date of July 1, 1985. The reservation shall have equal priority with all other reservations granted to all municipalities.

4. Any and all liability arising from the reservation or the use of the reservation is the sole responsibility of the applicant. By granting such reservations, the Board, on behalf of itself and the Department of Natural Resources and Conservation, assumes no liability.

**Application of the City of Ekalaka
Water Reservation No. 39FJ L084485-00**

II. FINDINGS OF FACT

A. FINDINGS ON THE QUALIFICATIONS OF THE CITY OF EKALAKA TO RESERVE WATER (MCA §85-2-316(1)(1993); ARM 36.16.107B(1)(a)).

1. The City of Ekalaka is an incorporated municipality and a subdivision of the State of Montana (Ekalaka Application (Ekal-App.) p. 1; MCA §85-2-316(1); ARM 36.16.107B(1)(a)).

2. The City of Ekalaka has applied for a water reservation of 20 acre-feet/year (af/y) of water with a maximum diversion rate of 0.071 million gallons per day (mgd), from existing or replacement wells to provide for future growth. The proposed project includes the addition of a sand separator on well #5 to increase its capacity as well as construction of a 100,000 gallon storage facility (Ekal-App., p. 3).

3. The City of Ekalaka requested a water reservation to meet future demands by municipal users (Ekal-App., p. 1).

B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY THE CITY OF EKALAKA (MCA §85-2-316(4)(a)(1993); ARM 36.16.107B(1)(b)).

4. The City of Ekalaka seeks to provide municipal water for future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply (Ekal-App., p. 5).

5. The purpose of the reservation is to provide water for municipal uses (Ekal-App., p. 1). Municipal uses are beneficial uses of water in Montana (MCA §85-2-102(2)(a); ARM 36.16.102(3); ARM 36.16.107B(1)(b)).

C. FINDINGS ON THE NEED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF EKALAKA (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

6. A reservation is the only means to obtain an early priority date for water that will be needed to meet projected municipal growth. In the future, water may be appropriated by competing agricultural, industrial, and instream users (Ekal-App., pp. 5-6).

7. It is important that the City of Ekalaka have a water reservation to meet future municipal water demands in order for the community to grow and develop (Ekal-App., pp. 5-6).

8. Competing water uses may prevent the City of Ekalaka from obtaining or perfecting a water use permit in the future. Without a reservation, the City of Ekalaka may have to go through a costly process of buying or condemning existing water rights to meet increasing demands (DEIS, p. 187).

9. The City of Ekalaka could lose existing, unused water rights necessary for future beneficial uses in an adjudication between competing water users (Ekal-App., p. 19).

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF EKALAKA (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

10. The method of determining the amount of water requested for a water reservation by the City of Ekalaka was based on the amount of water required to satisfy the needs of the historical peak population. Ekalaka's historical peak population of 904 occurred in 1950 (Ekal-App., pp. 7-8).

11. Water services in Ekalaka are 90 percent metered at present. Expansion of metering to 100 percent is planned (Ekal-App., p. 30). The City of Ekalaka average water use rate is 145 gallons per capita per day (gpcd), (Ekal-App., p. 16). The 145 gpcd use rate is considerably lower than the typical basin use rate of 250 gallons per person daily (Ekal-App., p. 16).

12. The water use efficiencies associated with the municipal uses by the City of Ekalaka are reasonable (ARM 36.16.107B(3)(b)).

13. No other cost-effective measure could be taken within the reservation term to increase the use efficiency by the City of Ekalaka and lessen the amount of water required for the purpose of the reservation (ARM 36.16.107B(3)(b)).

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE CITY OF EKALAKA IS IN THE PUBLIC INTEREST (MCA §85-2-316(4)(a)(iv)(1993); ARM 36.16.107B(4)).

14. Benefits of the City of Ekalaka's water reservation were calculated on a willingness-to-pay basis. Communities in the Middle Missouri Basin consider \$3.00/1000 gallons of water the upper limit of the willingness to pay. \$1.50/1000 gallons is a reasonable expression of the lower limit (Ekal-App., p. 24). Ekalaka municipal users are currently paying \$1.87/1000 gallons of water (Ekal-App., p. 26).

15. The additional water provided by the water reservation will cost approximately \$3.86/1,000 gallons. Combined with the current low cost of municipal water in Ekalaka, the future cost of water in Ekalaka would be \$2.24/1,000 gallons which is less than the upper limit of \$3.00/1,000 gallons (Ekal-App., p. 26).

16. The direct benefits of the City of Ekalaka's water reservation exceed the direct costs (ARM 36.16.107B(4)(a)).

17. Indirect benefits of the City of Ekalaka's reservation may include secondary economic benefits to the community and to the state, expanding both the property and income tax base from increased population (Ekal-App., p. 26).

18. Indirect costs of the reservation may include loss of opportunity for other development and increased administrative costs. While not quantified, these costs are minor (Ekal-App., p. 26).

19. There is no significant adverse environmental impact associated with the use of the City of Ekalaka's water reservation. The effects of individual municipal water reservation depletions on water quality have not been quantified, but should be very small. Resulting health risks have not been quantified. No other non-quantifiable benefits or costs were identified (Ekal-App., p. 27).

20. Net benefits of granting the City of Ekalaka's water reservation exceed the net benefits of not granting the water reservation and the project is economically feasible (ARM 36.16.107B(4) (b); ARM 36.16.102(9)).

21. Failure to reserve water for future municipal use by the City of Ekalaka is likely to result in an irretrievable loss of a resource development opportunity (Ekal-App., p. 27; ARM 36.16.107B(4) (d)).

22. As conditioned, the City of Ekalaka's water reservation will have no significant adverse impact to public health, welfare, or safety (ARM 36.16.107B(4) (e)).

F. OTHER FINDINGS RELATING TO BOARD DECISION (MCA §85-2-316(3) (B), (4) (a) (iv) (b), (5), (6), and (9) (e) (1993); ARM 36.16.107B(5) through (8)).

23. The water reservation by the City of Ekalaka will be used entirely within the state and within the Missouri River Basin (Ekal-App., p. 1; ARM 36.16.107B(5) and (6)).

24. The City of Ekalaka has identified a management plan for the design, development, and administration of its water reservation (Ekal-App., p. 28-33).

25. The City of Ekalaka is capable of exercising reasonable diligence towards feasibly financing the project and applying reservation water to beneficial use in accordance with the management plan (ARM 36.16.107B(7)).

26. The priority date of the City of Ekalaka's water reservation is July 1, 1989 (MCA §85-2-331(4)).

27. As conditioned, the City of Ekalaka's water reservation will not adversely affect any senior water rights (ARM 36.16.107B(8)).

III. CONCLUSIONS OF LAW

1. City of Ekalaka is a qualified applicant for a water reservation (MCA §85-2-316(1) (1993)).

2. The purpose of the City of Ekalaka's application is a beneficial use (MCA §85-2-316(4) (a) (i) (1993); ARM 36.16.107B(1) (b)).

3. The need for the City of Ekalaka has been established. The City has established that there is a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its reservation (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

4. The methodologies and assumptions used by the City of Ekalaka are suitable and accurate under present conditions (ARM 36.16.107B(3)(a)). As modified, the City of Ekalaka has established the amount of water needed to fulfill its reservation (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

5. Based on a weighing and balancing of the evidence, the reservation by the City of Ekalaka, as modified herein, is in the public interest (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(4)).

6. Little Missouri River water reservations approved by the Board shall have a priority date of July 1, 1989 (MCA §85-2-331(4)). The Board may determine the relative priorities of all reservations (MCA §85-2-316(a)(e)).

7. The Board may grant, deny, modify, or condition any reservation applied for. In no case may the Board make a reservation for more than the amount applied for (MCA §85-2-316).

8. The Board has no authority under the reservation statutes or any other statutes to determine, or alter, any water right that is not a reservation (MCA §85-2-316(14)).

IV. ORDER

1. Subject to all applicable modifications, conditions, and limitations (including but not limited to the conditions applied to consumptive use reservations in Exhibit A attached to this Order), the application of the City of Ekalaka is granted for the following amount and flow of water: 20 af/year and .071 mgd.

2. The point of diversion and place of use are set forth in the reservation application by the City of Ekalaka and by reference are made a part of this Order.

3. Relative to other reservations, the priority date of this reservation shall be ahead of any other non-municipal reservations granted with a priority date of July 1, 1989. The reservation shall have equal priority with all other reservations granted to all municipalities.

4. Any and all liability arising from the reservation or the use of the reservation is the sole responsibility of the applicant. By granting such reservations, the Board, on behalf of itself and the Department of Natural Resources and Conservation, assumes no liability.

Application of the City of Fort Peck
Water Reservation No. 40S L077749-00

II. FINDINGS OF FACT

A. FINDINGS ON THE QUALIFICATIONS OF THE CITY OF FORT PECK TO RESERVE WATER (MCA §85-2-316(1)(1993); ARM 36.16.107B(1)(a)).

1. The City of Fort Peck is an incorporated municipality and a subdivision of the State of Montana (Ft. Peck App., p. 1; MCA §85-2-316(1); ARM 36.16.107B(1)(a)).

2. The City of Fort Peck has applied for a water reservation of 100 acre-feet/year (af/y) of water with a maximum diversion rate of .216 millions gallons per day (mgd) to be diverted from the Missouri River mainstem below the Fort Peck Dam (Ft. Peck App., p. 4).

3. The City of Fort Peck requested a water reservation to meet future demands by municipal users (Ft. Peck App., p. 1).

B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY THE CITY OF FORT PECK (MCA §85-2-316(4)(a)(1993); ARM 36.16.107B(1)(b)).

4. The City of Fort Peck seeks to provide municipal water for future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply (Ft. Peck App., p. 1).

5. The purpose of the reservation is to provide the water for municipal uses (Ft. Peck App., p. 1). Municipal uses are beneficial uses of water in Montana (MCA §85-2-102(2)(a); ARM 36.16.102(3); ARM 36.16.107B(1)(b)).

C. FINDINGS ON THE NEED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF FORT PECK (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

6. A reservation is the only means to obtain an early priority date for water that will be needed to meet projected municipal growth. In the future, water may be appropriated by competing agricultural, industrial, and instream users (Ft. Peck App., p. 6).

7. It is important that the City of Fort Peck have a water reservation to meet future municipal water demands in order for the community to grow and develop (Ft. Peck App., p. 6).

8. Competing water uses may prevent the City of Fort Peck from obtaining or perfecting a water use permit in the future. Without a reservation, the City of Fort Peck may have to go through the process of buying or condemning existing water rights to meet increasing demands (DEIS, p. 187).

9. The City of Fort Peck could lose existing, unused water rights necessary for future beneficial uses in an adjudication between competing water users (Ft. Peck App., pp. 18-19).

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF FORT PECK (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

10. The method of determining the amount of water requested for a water reservation by the City of Fort Peck was based on a forecast of its future population using National Planning Association data. This information along with the estimated amount of water used per person was projected to the year 2035 to determine the reservation amount (Ft. Peck App., p. 8).

11. Water services in Fort Peck are 95% metered at present (Ft. Peck App., p. 32). The City of Fort Peck's average water use rate is 542 gallons per capita per day (gpcd) (Ft. Peck App., p. 16).

12. Government facilities in and around the City of Fort Peck are the largest users of municipal water. In addition, Kiwanis Park is maintained by the Army Corp of Engineers as a tourist facility (Gallagher, Pre-filed Dir., p. 2).

13. Although Valley County has declined in population in recent years, Fort Peck has grown. All housing units in the city are occupied and demand exceeds supply (Gallagher, Pre-filed Dir., p. 3).

14. A higher cost for water is planned to be implemented when the city assumes full operation of the water treatment plant currently operated by the Army Corp of Engineers. No other cost-effective measure could be taken within the reservation term to increase the use efficiency by the City of Fort Peck and lessen the amount of water required for the purpose of the reservation (ARM 36.16.107B(3)(b)).

15. The water use efficiencies associated with the municipal uses by the City of Fort Peck are reasonable (ARM 36.16.107B(3)(b)).

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE CITY OF FORT PECK IS IN THE PUBLIC INTEREST (MCA §85-2-316(4)(a)(iv)(1993); ARM 36.16.107B(4)).

16. Benefits of the City of Fort Peck's water reservation were calculated on a willingness-to-pay basis. Communities in the Middle Missouri Basin consider \$3.00/1,000 gallons of water to be an upper limit of the willingness to pay. Fort Peck municipal users are currently paying \$0.65/1,000 gallons. The cost specific to the reserved water is \$2.04/1,000 gallons which is less than the assumed willingness to pay of \$3.00/1,000 gallons (Ft. Peck App., p. 27).

17. The direct benefits of the City of Fort Peck's water reservation exceed the direct costs (ARM 36.16.107B(4)(a)).

18. Indirect benefits of the City of Fort Peck's reservation may include secondary economic benefits to the community and to the state, expanding both the property and income tax base from increased population (Ft. Peck App., p. 28).

19. Indirect costs of the reservation may include loss of opportunity for other development and increased administrative costs. While not quantified, these costs are minor (Ft. Peck App., p. 27-28).

20. There is no significant adverse environmental impact associated with the use of the City of Fort Peck's water reservation (Ft. Peck App., p. 28). The effects of individual municipal water reservation depletions on water quality have not been quantified (Ft. Peck App., p. 28), but should be very small. Resulting health risks have not been quantified. No other non-quantifiable benefits or costs were identified.

21. Net benefits of granting the City of Fort Peck's water reservation exceed the net benefits of not granting the water reservation and the project is economically feasible (ARM 36.16.107B(4)(b); ARM 36.16.102(9)).

22. The City of Fort Peck identified one alternative source of water for future development. A proposal for the development of a Ranney Well System was reviewed. This alternative would not provide greater net benefits than the water reservation (Ft. Peck App., p. 21) and is not reasonable (ARM 36.16.107B(4)(c)).

23. Failure to reserve water for future municipal use by the City of Fort Peck is likely to result in an irretrievable loss of a resource development opportunity (Ft. Peck App., p. 29; ARM 36.16.107B(4)(d)).

24. As conditioned, the City of Fort Peck's water reservation will have no significant adverse impact to public health, welfare, or safety (ARM 36.16.107B(4)(e)).

F. OTHER FINDINGS RELATING TO BOARD DECISION (MCA §85-2-316(3)(B), (4)(a)(iv)(b), (5), (6), and (9)(e) (1993); ARM 36.16.107B(5) through (8)).

25. The water reservation by the City of Fort Peck will be used entirely within the state and within the Missouri River Basin (Ft. Peck App., p. 1; ARM 36.16.107B(5) and (6)).

26. The City of Fort Peck has identified a management plan for the design, development, and administration of its water reservation (Ft. Peck App., pp. 30-33).

27. The City of Fort Peck is capable of exercising reasonable diligence towards feasibly financing the project and applying

reservation water to beneficial use in accordance with the management plan (ARM 36.16.107B(7)).

28. The priority date of the City of Fort Peck's water reservation is July 1, 1985 (MCA §85-2-331(4)).

29. As conditioned, the City of Fort Peck's water reservation will not adversely affect any senior water rights (ARM 36.16.107B(8)).

III. CONCLUSIONS OF LAW

1. City of Fort Peck is a qualified applicant for a water reservation (MCA §85-2-316(1)(1993)).

2. The purpose of the City of Fort Peck's application is a beneficial use (MCA §85-2-316(4)(a)(i)(1993); ARM 36.16.107B(1)(b)).

3. The need for the City of Fort Peck has been established. The City has established that there is a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its reservation (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

4. The methodologies and assumptions used by the City of Fort Peck are suitable and accurate under present conditions (ARM 36.16.107B(3)(a)). As modified, the City of Fort Peck has established the amount of water needed to fulfill its reservation (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

5. Based on a weighing and balancing of the evidence, the reservation by the City of Fort Peck, as modified herein, is in the public interest (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(4)).

6. Lower Missouri River water reservations approved by the Board shall have a priority date of July 1, 1985 (MCA §85-2-331(4)). The Board may determine the relative priorities of all reservations (MCA §85-2-316(a)(e)).

7. The Board may grant, deny, modify, or condition any reservation applied for. In no case may the Board make a reservation for more than the amount applied for (MCA §85-2-316).

8. The Board has no authority under the reservation statutes or any other statutes to determine, or alter, any water right that is not a reservation (MCA §85-2-316(14)).

IV. ORDER

1. Subject to all applicable modifications, conditions, and limitations (including but not limited to the conditions applied to consumptive use reservations in Exhibit A attached to this Order), the application of the City of Fort Peck is granted for the following amount and flow of water: 100 af/y at .216 mgd.

2. The point of diversion and place of use are set forth in the reservation application of the City of Fort Peck and by reference are made a part of this Order.

3. Relative to other reservations, the priority date of this reservation shall be ahead of any other non-municipal reservation granted with a priority date of July 1, 1985. The reservation shall have equal priority with all other reservations granted to all municipalities.

4. Any and all liability arising from the reservation or the use of the reservation is the sole responsibility of the applicant. By granting such reservations, the Board, on behalf of itself and the Department of Natural Resources and Conservation, assumes no liability.

**Application of the City of Harlem
Water Reservation No. 40J L084489-00**

II. FINDINGS OF FACT

A. FINDINGS ON THE QUALIFICATION OF THE CITY OF HARLEM TO RESERVE WATER (MCA §85-2-316(1) (1993); ARM 36.16.107B(1) (a)).

1. The City of Harlem is an incorporated municipality and a subdivision of the State of Montana (Harlem Application (Har-App.) p. 1; MCA §85-2-316(1); ARM 36.16.107B(1) (a)).

2. The City of Harlem has applied for a water reservation of 200 acre-feet/year (af/y) of water with a maximum diversion rate of .504 million gallons per day (mgd) to be withdrawn from one groundwater well to supplement existing surface diversions from the Milk River. Additionally, Harlem requests a supplemental reservation to divert 365 af/y from the Milk River to storage from September 30 to June 15 (Har-App., p. 4).

3. The City of Harlem requested a water reservation to reserve water in the event that contracts for water with the U.S. Bureau of Reclamation (BOR) are not renewed (Har-App., p. 20).

B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY THE CITY OF HARLEM (MCA §85-2-316(4) (a) (1993); ARM 36.16.107B(1) (b)).

4. The City of Harlem seeks to provide municipal water for existing uses and future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply (Har-App., p. 7).

5. The purpose of the reservation is to provide water for municipal and industrial uses (Har-App., p. 1). Municipal and industrial uses are beneficial uses of water in Montana (MCA §85-2-102(2) (a); ARM 36.16.102(3); ARM 36.16.107B(1) (b)).

C. FINDINGS ON THE NEED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF HARLEM (MCA §85-2-316(4) (a) (ii) (1993); ARM 36.16.107B(2)).

6. In 1962, Harlem entered into a forty year contract with the BOR for 500 af/y (Har-App., Appendix A, p. 1). In 1988, 200 af/y was used from this source, leaving a 300 af/y margin in the contract (Har-App., p. 4).

7. The projected service area population for the year 2035 will require 362 af/y assuming a usage rate of 200 gallons per capita daily, a 25% increase from the current usage rate of 150 gpcd (Har-App., pp. 18-19). The City's current contract with the BOR exceeds the projected service area needs by 138 af/y.

8. The Milk River mainstem, downstream of Fresno reservoir, is presently closed to new appropriations from June 15 through September 30 (Guenthner, Obj., Pre-filed Dir., pp. 1-2).

9. Water held in contract by the City of Harlem is not available for appropriation by competing agricultural, industrial, and instream users (Har-App., Appendix A).

10. A water reservation is one means to obtain an earlier priority date for water that may be needed to meet existing uses and projected municipal growth. Contractual agreements with the BOR should provide more than enough water for existing and future municipal growth.

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF HARLEM (MCA §85-2-316(4)(a)(iii) (1993); ARM 36.16.107B(3)).

11. The method of determining the amount of water requested for a water reservation by the City of Harlem was based on a forecast of its future population to the year 2035 along with the estimated amount of water used per person (Har-App., pp. 9-10). The methodology used by the City of Harlem projected an average annualized, compounded population, growth rate of approximately 0.1 percent (Har-App., p. 11). The 1990 population of Harlem was 882 (Har-App., p. 11). The City of Harlem's population forecast for the year 2035 was 1,127 people (Har-App., p. 12).

12. The populations recorded in the 1990 census indicate that Harlem's population remained stable between 1980 and 1990 (Har-App., p. 12).

13. The City of Harlem's average water use rate is 150 gallons per capita per day (gpcd) which is less than the typical basin use rate of 250 gallons per person daily (Har-App., p. 14). For the purposes of this application, Harlem assumed a usage rate of 200 gpcd (Har-App., p. 18). Harlem's distribution system is in good condition and usage is not likely to increase as a result of leakage (Har-App., pp. 15-17).

14. The city does not provide a reason for the 25 percent increase in per capita usage assumed in the application. Increased metering and higher water costs associated with the development of reserved water should discourage increased consumption. The water use efficiencies associated with the municipal uses by the City of Harlem are not reasonable (ARM 36.16.107B(3)(b)).

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE CITY OF HARLEM IS NOT IN THE PUBLIC INTEREST (MCA §85-2-316(4)(a)(iv)(1993); ARM 36.16.107B(4)).

15. Groundwater contributions to the Milk River to supplement diversions at Harlem's treatment facility may result in slight increases in Total Dissolved Solids (TDS) concentrations in the Milk River (Har-App., p. 32).

16. Groundwater has not been used, historically, as a municipal source in the Harlem area due to poor water quality and limited yields (Har-App., p. 22).

17. Harlem is requesting a reservation of 365 af/y diverted to storage from the Milk River with annual diversions occurring from September 30, through June 15 (Har-App., p. 3).

18. The Fort Belknap Indian Tribe is a senior water user on the Milk River and typically diverts water for the Fort Belknap Indian Irrigation Project (FBIIP) beginning April 15 annually (Davis, Obj., Reb., p. 1).

19. If the tribes developed 14,000 new acres under their reserved right, it is currently estimated that they would be short of water eleven percent on an average annual basis and eighty-two percent short during an extremely dry year (BOR, Obj., Pre-filed, Exh. 2, S-1).

20. Milk River irrigators face significant water shortages in 6 years out of 10. These shortages will increase by an additional 28,000 acre-feet in the future when Canada and the Fort Belknap Reservation make use of their legal share of the water (BOR, Obj., Pre-filed, Exh. 2, S-1).

III. CONCLUSIONS OF LAW

1. City of Harlem is a qualified applicant for a water reservation (MCA §85-2-316(1)(1993)).

2. The purpose of the City of Harlem's application is a beneficial use (MCA §85-2-316(4)(a)(i)(1993); ARM 36.16.107B(1)(b)).

3. The City of Harlem has not established the need for the surface water diversion from the Milk River. The City's contract with the BOR for storage water in Fresno Reservoir is not at risk of consumption by other in-state water users. The City of Harlem has not demonstrated a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its reservation. The City of Harlem's reservation is not needed (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

4. The methodologies and assumptions used by the City of Harlem are not suitable and accurate under present conditions. The 25 percent increase in per capita consumption is not supported in the record (ARM 36.16.107B(3)(a)).

5. Based on a weighing and balancing of the evidence, the reservation by the City of Harlem is not in the public interest. Water in the Milk River is typically unavailable to satisfy the needs of current users. This reservation may adversely affect the rights of senior water users (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(8)).

6. The Board may grant, deny, modify, or condition any reservation applied for. In no case may the Board make a reservation for more than the amount applied for (MCA §85-2-316).

7. The Board has no authority under the reservation statutes or any other statutes to determine, or alter any water right that is not a reservation (MCA §85-2-316(14)).

IV. ORDER

1. The water reservation for the city of Harlem is denied.

**Application of the City of Havre
Water Reservation No. 40J L084486-00**

II. FINDINGS OF FACT

A. FINDINGS ON THE QUALIFICATION OF THE CITY OF HAVRE TO RESERVE WATER (MCA §85-2-316(1)(1993); ARM 36.16.107B(1)(a)).

1. The City of Havre is an incorporated municipality and a subdivision of the State of Montana (Havr Application (Hvr-App.) p. 1; MCA §85-2-316(1); ARM 36.16.107B(1)(a)).

2. The City of Havre has applied for a water reservation of three wells to provide 475 acre-feet/year (af/y) of water with a total maximum diversion rate of 1,050 gallons per minute. Havre also requests a secondary reservation of 1550 AF of surface water to be diverted from the Milk River to storage during the winter period from September 30 to June 15 (Hvr-App., p. 4).

3. The City of Havre requested a water reservation to reserve water in the event that contracts for water with the U.S. Bureau of Reclamation (BOR) are not renewed. The reservation would provide a water diversion right for water from the Milk River (Hvr-App., p. 20).

B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY THE CITY OF HAVRE (MCA §85-2-316(4)(a)(1993); ARM 36.16.107B(1)(b)).

4. The City of Havre seeks to provide municipal water for existing uses and future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply (Hvr-App., p. 4).

5. The purpose of the reservation is to provide water for municipal and industrial uses (Hvr-App., p. 1). Municipal and industrial uses are beneficial uses of water in Montana (MCA §85-2-102(2)(a); ARM 36.16.102(3); ARM 36.16.107B(1)(b)).

C. FINDINGS ON THE NEED FOR THE GROUNDWATER RESERVATION APPLIED FOR BY THE CITY OF HAVRE (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

6. It is important that the City of Havre have a water reservation to meet existing and future municipal and industrial water demands in order for the community to prosper and develop Hvr., App., p. 8).

7. Without a reservation, the City of Havre may have to go through a costly process of buying or condemning existing water rights to meet increasing demand (DEIS, p. 187).

8. The Milk River Basin is presently closed to additional surface water diversions during the irrigation season. Havre is currently dependent on the BOR to supply water from Fresno. The City believes it is prudent to secure a groundwater reservation that will be adequate to supply projected peak demand (Hvr-App., pp. 21-23).

9. Havre currently supplements water supplied from Fresno with groundwater diversions. Historically the city has developed six wells. Four of those wells remain in service. Two of these wells are only adequate to provide emergency back-up service (Hvr-App., p. 20-21).

10. Prior to 1950, all of Havre's drinking water was supplied by municipal wells. Water from Fresno Reservoir eventually replaced this source of supply as water quality and quantity in the aquifer deteriorated. The groundwater reservations requested would replace this historical supply. The aquifer supplying the reservation is of sufficient quantity and quality to fulfill the reservation request (Grabofsky, Dir., Day 1, pp. 51-53).

11. Over time, existing wells will continue to decrease in yield as well screens are plugged with iron encrustation and bacteria growth. These wells will require replacement (Hvr-App., p. 21).

12. A reservation is the only means to obtain an early priority date for water that will be needed to meet existing uses and projected municipal growth. A developer has introduced plans to construct a golf course, hotel and motel near the city (Grabofsky, Pre-filed Dir., p. 5). In the future, water may be appropriated by competing agricultural, industrial, and instream users (Hvr-App., p. 7; ARM 36.16.107B(2) (a)).

13. The City of Havre has depended on groundwater to satisfy its needs, and there is a reasonable likelihood this source may be appropriated in the future by competing agricultural and industrial users. (§85-2-316(4)(a)(ii); ARM 36.16.107B(2)).

14. The city of Havre could lose existing, unused water rights necessary for future beneficial uses in an adjudication between competing water users (Hvr-App., p. 22).

D. FINDINGS THAT THE SURFACE WATER RESERVATION APPLIED FOR BY THE CITY OF HAVRE IS NOT NEEDED (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

15. The city holds no water rights or claims for direct flow from the Milk River at this time. Havre relies on a 40 year contract with the BOR for 2800 af/y stored in Fresno reservoir. Evidence presented by the City of Havre in their reservation application and pre-filed testimony, establishes that approximately 1,075 af/y of the BOR contract are used at present, leaving 1,725 af/y available from this source. An additional 475 af/y will be required in the current

planning period which leaves a 1350 af/y margin in the contract (Grabofsky, Pre-filed, p.2; Hvr-App., p. 4).

16. The record indicates a reasonable likelihood that BOR will continue the city's water contract. Havre entered into a 40 year contract with the BOR in, 1950, for 2800 af/y (Hvr-App., Appendix B). That contract was renewed in 1992 for an additional 40 year term (Grabofsky, Pre-filed Dir., p. 2). Water held in contract by the City of Havre is not available for appropriation by competing agricultural, industrial, and instream users (Hvr-App., Appendix B; ARM 36.16.107B(2)(a)).

17. There is a discrepancy in the record with respect to the amount of water currently used and required in the future to satisfy the needs of the City of Havre. Both the reservation application and pre-filed testimony filed August 5, 1994, state that of 2800 af/y contracted with the BOR, "[a]bout 1075 af/y [of the BOR contract] are used presently leaving 1725 af/y not used[.]" (Grabofsky, Pre-filed, p.2; Hvr-App., p. 4). The application further states that in the year 2035, a hypothetical service population of 16,040 using 150 gallons per capita daily will only require 2695 af/y (Hvr-App., pp. 19-20), 105 af/y less than the amount provided for in the BOR contract. At the Contested Case Hearing in Glasgow, however, it was stated that Havre is currently using most of the water in the BOR contract. The testimony at the Contested Case Hearing did not help to clarify this discrepancy (See Grabofsky, Cross, Tr. Day 1, pp. 64-66).

E. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF HAVRE (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

18. The method of determining the amount of water requested for a water reservation by the City of Havre was based on a forecast of its future population to the year 2035 along with the estimated amount of water used per person (Hvr-App., p. 19). The methodology used by the City of Havre projected an average annualized, compounded population, growth rate of approximately .1 percent. The projected population of the City of Havre for 1990 was 10,597. The City of Havre's forecasted peak population for the year, 2035, was 11,724 people using National Planning Association Data (Hvr-App., p. 11). Havre may annex North Havre, which would add an additional 2,000 persons to the service area (Hvr-App., p. 12).

19. Havre's average usage of 144 gallons per person daily is lower than the typical basin municipal use rate of 250 gallons per person daily (Hvr-App., p. 18).

20. The water use efficiencies associated with the municipal and industrial uses by the City of Havre are reasonable (ARM 36.16.107B(3)(b)).

21. No other cost-effective measure could be taken within the reservation term to increase the use efficiency by the City of Havre and lessen the amount of water required for the purpose of the reservation (ARM 36.16.107B(3)(b)).

F. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE CITY OF HAVRE IS IN THE PUBLIC INTEREST (MCA §85-2-316(4)(a)(iv)(1993); ARM 36.16.107B(4)).

22. Benefits of the City of Havre's water reservation were calculated on a willingness-to-pay basis. Communities in the Middle Missouri Basin consider \$3.00/1,000 gallons of water to be an upper limit of the willingness to pay. Havre municipal users are currently paying \$1.76/1,000 gallons (Hvr-App., p. 33).

23. The cost of water in Havre, after development of the reservation, will be approximately \$1.65/1,000 gallons of water. This figure will vary depending on the schedule of expenditures (Hvr-App., p. 35). This cost is less than the \$3.00/1,000 gallons which is considered the upper limit of the willingness to pay.

24. The direct benefits of the City of Havre's water reservation exceed the direct costs (ARM 36.16.107B(4)(a)).

25. Indirect benefits of the City of Havre's reservation may include secondary economic benefits to the community and to the state, expanding both the property and income tax base from increased population (Hvr-App., p. 35).

26. Indirect costs of the reservation may include loss of opportunity for other development and increased administrative costs. While not quantified, these costs are minor (Hvr-App., p. 35).

27. There is no significant adverse environmental impact associated with the use of the City of Havre's water reservation (Hvr-App., p. 35). The effects of individual municipal water depletions on water quality have not been quantified.

28. Net benefits of granting the City of Havre's water reservation exceed the net benefits of not granting the water reservation and the project is economically feasible (ARM 36.16.107B(4)(b); ARM 36.16.102(9)).

29. The City of Havre identified two alternative sources of water for future development in addition to the reservation request. Plans for a water storage project and participation in the Virgelle-Milk Canal Project were reviewed. These alternatives would not provide greater net benefits than the proposed water reservation and are not reasonable (Hvr-App., p. 28-33); (ARM 36.16.107B(4)(c)).

30. Failure to reserve water for future municipal and industrial use by the City of Havre is likely to result in an irretrievable loss

of a resource development opportunity (Hvr-App., p. 33); ARM 36.16.107B(4)(d)).

31. As conditioned, the City of Havre's water reservation will have no significant adverse impact to public health, welfare, or safety (ARM 36.16.107B(4)(e)).

G. FINDINGS THAT THE SURFACE WATER RESERVATION APPLIED FOR BY THE CITY OF HAVRE IS NOT IN THE PUBLIC INTEREST (MCA §85-2-316(4)(a)(iv)(1993); ARM 36.16.107B(4)).

32. Havre is requesting a reservation of 1550 af/y diverted to storage from the Milk River with annual diversions occurring from September 30, through June 15 (Hvr-App., p. 3).

33. The Fort Belknap Indian Tribe is a senior water user on the Milk River and typically diverts water for the Fort Belknap Indian Irrigation Project (FBIIP) beginning April 15 annually (Davis, Obj., Reb., p. 1).

34. Natural Flows in the Milk River are currently inadequate to supply the FBIIP, and Havre's reservation may further increase FBIIP's dependency on storage water from Fresno to meet its needs (Davis, Obj., Reb., pp. 1-2).

35. Storage records for Fresno Reservoir indicate that the reservoir did not fill in 10 years of the last 21 (Guenthner, Obj., Pre-filed Dir., p. 2).

36. If the tribes developed 14,000 new acres under their reserved right, it is currently estimated that they would be short eleven percent on an average annual basis and eighty-two percent short during an extremely dry year (BOR, Obj., Pre-filed, Exh. 2, S-1).

37. Milk River irrigators face significant water shortages in 6 years out of 10. These shortages will increase by an additional 28,000 acre-feet in the future when Canada and the Fort Belknap Reservation make use of their legal share of water (BOR, Obj., Pre-filed, Exh. 2, S-1).

38. The City of Havre's surface water reservation, as applied for, may adversely affect senior water rights (ARM 36.16.107B(8)).

H. OTHER FINDINGS RELATING TO BOARD DECISION (MCA §85-2-316(3)(B), (4)(a)(iv)(b), (5), (6), and (9)(e)(1993); ARM 36.16.107B(5)(A) through (8)).

39. The water reservation by the City of Havre will be used entirely within the state and within the Missouri River Basin (Hvr-App., p. 1; ARM 36.16.107B(5) and (6)).

40. The City of Havre has identified a management plan for the design, development, and administration of its water reservation (Hvr-App., p. 36-38/A)

41. The City of Havre is capable of exercising reasonable diligence towards feasibly financing the project and applying reservation water to beneficial use in accordance with the management plan (ARM 36.16.107B(7)).

42. The priority date of the City of Havre's water reservation is July 1, 1985 (§85-2-331(4)).

43. As conditioned, the City of Havre's water reservation will not adversely affect any senior water rights (ARM 36.16.107B(8)).

III. CONCLUSIONS OF LAW

1. City of Havre is a qualified applicant for a water reservation (MCA §85-2-316(1)(1993)).

2. The purpose of the City of Havre's application is a beneficial use (MCA §85-2-316(4)(a)(i)(1993); ARM 36.16.107B(1)(b)).

3. The need for the groundwater reservation for the City of Havre has been established. The City has established that there is a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its reservation. A groundwater reservation for the city of Havre is needed. (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

4. The need for the surface water reservation for the City of Havre has not been established. The City's contract with the BOR for storage water in Fresno Reservoir is not at risk of consumption by other in-state water users. Havre has not established that there is a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its surface water reservation. A surface water reservation for the City of Havre is not needed (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

5. The methodologies and assumptions used by the City of Havre as applied to the surface water application are not accepted as suitable and accurate under present conditions (ARM 36.16.107B(3)(a)). The Board recognized discrepancies in the methodologies and assumptions and adjusted them to make them suitable and accurate under present conditions. The City of Havre has not established the amount of water needed to fulfill its surface water reservation request. (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

6. The methodologies and assumptions used by the City of Havre as applied to the groundwater application are accepted as suitable and accurate under present conditions (ARM 36.16.107B(3)(a)). The City of Havre has established the amount of water needed to fulfill its groundwater reservation (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

7. Based on a weighing and balancing of the evidence, the groundwater reservation by the City of Havre, as modified herein, is in the public interest (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(4)).

8. Based on a weighing and balancing of the evidence, the surface water reservation by the City of Havre is not in the public interest. Water in the Milk River is typically unavailable to satisfy the needs of current users. This reservation may adversely affect the rights of senior water users (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(8)).

9. Lower Missouri River water reservations approved by the Board shall have a priority date of July 1, 1985 (MCA §85-2-331(4)). The Board may determine the relative priorities of all reservations (MCA §85-2-316(a)(e)).

10. The Board may grant, deny, modify, or condition any reservation applied for. In no case may the Board make a reservation for more than the amount applied for (MCA §85-2-316).

11. The Board has no authority under the reservation statutes or any other statutes to determine, or alter any water right that is not a reservation (MCA §85-2-316(14)).

IV. ORDER

1. Subject to all applicable modifications, conditions, and limitations (including but not limited to the conditions applied to consumptive use reservations in Exhibit A attached to this Order), the application for a groundwater reservation by the City of Havre is granted for the following amount and flow of water: 475 af/y from three wells with a total flow rate of 1,050 gpm.

2. The surface water reservation of the City of Havre is denied.

3. The points of diversion and places of use are as set forth in the reservation application of the City of Havre and by reference are made a part of this Order.

4. Relative to other reservations, the priority date of this reservation shall be ahead of any other non-municipal reservation granted with a priority date of July 1, 1985. The reservation shall have equal priority with all other reservations granted to all municipalities.

5. Any and all liability arising from the reservation or the use of the reservation is the sole responsibility of the applicant. By granting such reservations, the Board, on behalf of itself and the Department of Natural Resources and Conservation, assumes no liability.

Application of Hill County Water District
Water Reservation No. 41P L084487-00

II. FINDINGS OF FACT

A. FINDINGS ON THE QUALIFICATIONS OF THE HILL COUNTY WATER DISTRICT TO RESERVE WATER (MCA §85-2-316(1) (1993); ARM 36.16.107B(1) (a)).

1. The Hill County Water District is a political subdivision of the State of Montana (Hill County Water District Application, (H.Cnty-App.) p. 1; MCA §85-2-316(1); ARM 36.16.107B(1) (a)).

2. The Hill County Water District has applied for a water reservation of 110 acre-feet/year (af/y) to be diverted from an inversion gallery located adjacent to the Marias River. Additionally, the Hill County Water District requests a supplemental reservation to divert 542 af/y from the Milk River to storage from September 30 to June 15 (H.Cnty-App., p. 4).

3. The Hill County Water District requested a water reservation to reserve water in the event that contracts for water with the U.S. Bureau of Reclamation (BOR) are not renewed (H.Cnty-App., p. 3).

4. The Marias River is not located in any of the subbasins which comprise the Lower Missouri River Basin: the Milk River Subbasin, Lower Missouri River Subbasin, and the Little Missouri River Subbasin (DEIS, pp. 9-10).

B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY THE HILL COUNTY WATER DISTRICT (MCA §85-2-316(4) (a) (1993); ARM 36.16.107B(1) (b)).

5. The Hill County Water District seeks to provide municipal water for existing uses and future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply (H.Cnty-App., p. 5).

6. The purpose of the reservation is to provide water for municipal and industrial uses (H.Cnty-App., p. 1). Municipal and industrial uses are beneficial uses of water in Montana (MCA §85-2-102(2) (a); ARM 36.16.102(3); ARM 36.16.107B(1) (b)).

C. FINDINGS ON THE NEED FOR THE SURFACE WATER RESERVATION APPLIED FOR BY THE HILL COUNTY WATER DISTRICT (MCA §85-2-316(4) (a) (ii) (1993); ARM 36.16.107B(2)).

7. In 1966, the Hill County Water District entered into a forty year contract with the BOR for 600 af/y (H.Cnty-App., p. 19). It is unclear from the record how much, if any, of this contracted water is used annually. The projected service area population for the year 2035 of 4,300 persons will require 542 af/y. The District's current

contract with the BOR exceeds the projected service area needs by 58 af/y (H-Cnty-App., p. 18).

8. The Hill County Water District is requesting a 542 af/y diversion from the outlet at Fresno Reservoir from September 30th to June 15 to provide for future beneficial uses (H-Cnty-App., p. 3). This amount is less than the 600 af/y currently held in contract with the BOR.

9. The Milk River mainstem, downstream of Fresno reservoir, is presently closed to new appropriations from June 15 through September 30 (Guenthner, Obj., Pre-filed Dir., p. 1).

10. Water held in contract with the BOR by the Hill County Water District is not available for appropriation by competing agricultural, industrial, and instream users (H-Cnty-App., Appendix A).

11. A water reservation is one means to obtain an earlier priority date for water that may be needed to meet existing uses and projected municipal growth. Contractual agreements with the BOR should provide more than enough water for existing and future municipal growth.

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE HILL COUNTY WATER DISTRICT (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

12. The method of determining the amount of water requested for a water reservation by the Hill County Water District was based on a forecast of its future population to the year 2035 along with the estimated amount of water used per person (H-Cnty-App., pp. 7-10). The methodology used by the Hill County Water District projected an average annualized, compounded population, growth rate of approximately 1.2 percent (H-Cnty-App., p. 9). The 1990, projected population of the Hill County Water District was 3,292 (H-Cnty-App., p. 11). The Hill County Water District's population forecast for the year 2035 was 4,300 people (H-Cnty-App., p. 11).

13. The Hill County Water District's average water use rate is 96 gallons per capita per day (gpcd) which is less than the typical basin use rate of 250 gallons per person daily (H-Cnty-App., p. 17).

14. The water use efficiencies associated with the municipal uses by the Hill County Water District are reasonable (ARM 36.16.107B(3)(b)).

15. No other cost-effective measure could be taken within the reservation term to increase the use efficiency by the Hill County Water District and lessen the amount of water required for the purpose of the reservation (ARM 36.16.107B(3)(b)).

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE HILL COUNTY WATER DISTRICT IS NOT IN THE PUBLIC INTEREST (MCA §85-2-316(4) (a) (iv) (1993); ARM 36.16.107B(4)).

16. The Hill County Water District is requesting a reservation of 542 af/y diverted to storage from the Milk River with annual diversions occurring from September 30, through June 15 (H-Cnty-App., p. 3).

17. The Fort Belknap Indian Tribe is a senior water user on the Milk River and typically diverts water for the Fort Belknap Indian Irrigation Project (FBIIP) beginning April 15 annually (Davis, Obj., Reb., p. 1).

18. If the tribes developed 14,000 new acres under their reserved right, it is currently estimated that they would be short of water eleven percent on an average annual basis and eighty-two percent short of water during an extremely dry year (BOR, Obj., Pre-filed, Exh. 2, S-1).

19. Milk River irrigators face significant water shortages in 6 years out of 10. These shortages will increase by an additional 28,000 acre-feet in the future when Canada and the Fort Belknap Reservation make use of their legal share of the water (BOR, Obj., Pre-filed, Exh. 2, S-1).

III. CONCLUSIONS OF LAW

1. Hill County Water District is a qualified applicant for a water reservation (MCA §85-2-316(1) (1993)).

2. The request for the Marias River diversion does not fall within the jurisdiction of the Lower Missouri Reservation proceeding and may be rejected by the Board for failure to satisfy this requirement (ARM 36.16.107A(1)).

3. The purpose of the Hill County Water District's application is a beneficial use (MCA §85-2-316(4) (a) (i) (1993); ARM 36.16.107B(1) (b)).

4. The Hill County Water District has not established the need for the surface water diversion from the Milk River. The District's contract with the BOR for storage water in Fresno Reservoir is not at risk of consumption by other in-state water users. The Hill County Water District has not demonstrated a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its reservation (MCA §85-2-316(4) (a) (ii) (1993); (ARM 36.16.107B(2))).

5. The methodologies and assumptions used by the Hill County Water District are suitable and accurate under present conditions (ARM 36.16.107B(3) (a)).

6. The Hill County Water District's water reservation, as applied for, may adversely affect senior water rights (ARM 36.16.107B(8)).

7. Based on a weighing and balancing of the evidence, the reservation by the Hill County Water District is not in the public interest. Water in the Milk River is typically unavailable to satisfy the needs of current users. This reservation may adversely affect the rights of senior water users (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(8)).

8. The Board may grant, deny, modify, or condition any reservation applied for. In no case may the Board make a reservation for more than the amount applied for (MCA §85-2-316).

9. The Board has no authority under the reservation statutes or any other statutes to determine, or alter any water right that is not a reservation (MCA §85-2-316(14)).

IV. ORDER

1. The water reservation for the Hill County Water District is denied.

Application of the City of Malta
Water Reservation No. 40J L084483-00

II. FINDINGS OF FACT

A. FINDINGS ON THE QUALIFICATIONS OF THE CITY OF MALTA TO RESERVE WATER (MCA §85-2-316(1)(1993); ARM 36.16.107B(1)(a)).

1. The City of Malta is an incorporated municipality and a subdivision of the State of Montana (Malta-App., p. 1; MCA §85-2-316(1); ARM 36.16.107B(1)(a)).

2. The City of Malta has applied for a water reservation of 137 acre-feet/year (af/y) of water with a maximum diversion rate of .43 millions gallons a day (mgd) to be diverted from one groundwater well located within the Malta city limits for year round use (Malta-App., p. 4).

3. The City of Malta requests a water reservation to meet future demands by municipal users (Malta-App., p. 1).

B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY THE CITY OF MALTA (MCA §85-2-316(4)(a)(1993); ARM 36.16.107B(1)(b)).

4. The City of Malta seeks to provide municipal water for future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply (Malta-App., p. 6).

5. The purpose of the reservation is to provide water for municipal uses (Malta-App., p. 1). Municipal uses are beneficial uses of water in Montana (MCA §85-2-102(2)(a); ARM 36.16.102(3); ARM 36.16.107B(1)(b)).

C. FINDINGS ON THE NEED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF MALTA (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

6. The city has constructed five wells historically, four of those wells remain in service for municipal use. The remaining well is used only as an irrigation well due to poor water quality. Over time, these wells will continue to decrease in yield as perforations in the well screen plug with iron encrustation and bacteria growth. These wells will eventually require replacement (Malta-App., pp. 20-21).

7. A reservation is the only means to obtain an early priority date for water that will be needed to meet projected municipal growth. In the future, water may be appropriated by competing agricultural, industrial, and instream users (Malta-App., p. 6-7).

8. It is important that the City of Malta have a water reservation to meet future municipal water demands in order for the community to grow and develop (Malta-App., p. 7).

9. Competing water uses may prevent the City of Malta from obtaining or perfecting a water use permit in the future. Without a reservation, the City of Malta may have to go through a costly process of buying or condemning existing water rights to meet increasing demands (DEIS, p. 187).

10. The city of Malta could lose existing, unused water rights necessary for future beneficial uses in an adjudication between competing water users (Malta-App., p. 21).

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF MALTA (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

11. The method of determining the amount of water requested for a water reservation by the city of Malta was based on the amount of water required to satisfy the needs of the historical peak population. Malta's historical peak population of 2,367 persons occurred in 1980 (Malta-App., p. 10).

12. In an effort to reduce overall leakage in the system, work is currently underway to replace the distribution system in the older parts of the city (Malta-App., p. 18).

13. The City of Malta's average water use rate is 360 gallons per capita per day (gpcd) (Malta-App., p. 17). The efficiencies associated with the municipal uses by the City of Malta are reasonable (ARM 36.16.107B(3)(b)).

14. No other cost-effective measure could be taken within the reservation term to increase the use efficiency by the City of Malta and lessen the amount of water required for the purpose of the reservation (ARM 36.16.107B(3)(b)).

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE CITY OF MALTA IS IN THE PUBLIC INTEREST (MCA §85-2-316(4)(a)(iv)(1993); ARM 36.16.107B(4)).

15. Benefits of the City of Malta's water reservation were calculated on a willingness-to-pay basis. Communities in the Middle Missouri Basin consider \$3.00/1,000 gallons to be an upper limit of the willingness to pay (Malta-App., p. 31). Malta municipal users are currently paying \$.70/1,000 gallons (Malta-App., p. 31).

16. The additional water provided by the water reservation will cost approximately \$1.98/1,000 gallons. This rate is lower than the assumed upper limit of \$3.00/1000 gallons which is considered the upper limit of the willingness to pay (Malta-App., p. 31).

17. The direct benefits of the City of Malta's water reservation exceed the direct costs (ARM 36.16.107B(4)(a)).

18. Indirect benefits of the City of Malta's reservation may include secondary economic benefits to the community and to the state, expanding both the property and income tax base from increased population (Malta-App., p. 32).

19. Indirect costs of the reservation may include loss of opportunity for other development and increased administrative costs. While not quantified, these costs are minor (Malta-App., p. 32).

20. There is no significant adverse environmental impact associated with the use of the City of Malta's water reservation. The effects of individual municipal water reservation depletions on water quality have not been quantified, but should be very small. Resulting health risks have not been quantified. No other non-quantifiable benefits or costs were identified (Malta-App., p. 32).

21. Net benefits of granting the City of Malta's water reservation exceed the net benefits of not granting the water reservation and the project is economically feasible (ARM 36.16.107B(4)(b); ARM 36.16.102(9)).

22. The City of Malta identified two alternative sources of water for future development in addition to the proposed reservation. A surface water storage project drawing water from the Milk River and participation in the Virgelle-Canal Project were reviewed (Malta-App., pp. 24-28). The two alternatives would not provide greater net benefits than the water reservation and are not reasonable (Malta-App., pp. 22-25); (ARM 36.16.107B(4)(c)).

23. Failure to reserve water for future municipal use by the City of Malta is likely to result in an irretrievable loss of a resource development opportunity (Malta-App., p. 33; ARM 36.16.107B(4)(d)).

24. As conditioned, the City of Malta's water reservation will have no significant adverse impact to public health, welfare, or safety (ARM 36.16.107B(4)(e)).

F. OTHER FINDINGS RELATING TO BOARD DECISION (MCA §85-2-316(3)(B), (4)(a)(iv)(b), (5), (6), and (9)(e) (1993); ARM 36.16.107B(5) through (8)).

25. The water reservation by the City of Malta will be used entirely within the state and within the Missouri River Basin (Malta-App., p. 1; ARM 36.16.107B(5) and (6)).

26. The City of Malta has identified a management plan for the design, development, and administration of its water reservation (Malta-App., pp. 34-39).

27. The City of Malta is capable of exercising reasonable diligence towards feasibly financing the project and applying reservation water to beneficial use in accordance with the management plan (ARM 36.16.107B(7)).

28. The priority date of the City of Malta's water reservation is July 1, 1985 (MCA § 85-2-331(4)).

29. As conditioned, the City of Malta's water reservation will not adversely affect any senior water rights (ARM 36.16.107B(8)).

III. CONCLUSIONS OF LAW

1. City of Malta is a qualified applicant for a water reservation (MCA §85-2-316(1)(1993)).

2. The purpose of the City of Malta's application is a beneficial use (MCA §85-2-316(4)(a)(i)(1993); ARM 36.16.107B(1)(b)).

3. The need for the City of Malta has been established. The City has established that there is a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its reservation (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

4. The methodologies and assumptions used by the City of Malta are suitable and accurate under present conditions (ARM 36.16.107B(3)(a)). As modified, the City of Malta has established the amount of water needed to fulfill its reservation (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

5. Based on a weighing and balancing of the evidence, the reservation by the City of Malta, as modified herein, is in the public interest (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(4)).

6. Lower Missouri River water reservations approved by the Board shall have a priority date of July 1, 1985 (MCA §85-2-331(4)). The Board may determine the relative priorities of all reservations (MCA §85-2-316(a)(e)).

7. The Board may grant, deny, modify, or condition any reservation applied for. In no case may the Board make a reservation for more than the amount applied for (MCA §85-2-316).

8. The Board has no authority under the reservation statutes or any other statutes to determine, or alter, any water right that is not a reservation (MCA §85-2-316(14)).

IV. ORDER

1. Subject to all applicable modifications, conditions, and limitations (including but not limited to the conditions applied to consumptive use reservations in Exhibit A attached to this Order), the application of the City of Malta is granted for the following amount and flow of water: 137 acre feet per year at a rate of .43 million gallons per day.

2. The point of diversion and place of use are set forth in the reservation application of the City of Malta and by reference are made a part of this Order.

3. Relative to other reservations, the priority date of this reservation shall be ahead of any other non-municipal reservations granted with a priority date of July 1, 1985. The reservation shall have equal priority with all other reservations granted to all municipalities.

4. Any and all liability arising from the reservation or the use of the reservation is the sole responsibility of the applicant. By granting such reservations, the Board, on behalf of itself and the Department of Natural Resources and Conservation, assumes no liability.

**Application of the City of Plentywood
Water Reservation No. 40R L084491-00**

II. FINDINGS OF FACT

**A. FINDINGS ON THE QUALIFICATIONS OF THE CITY OF PLENTYWOOD TO
RESERVE WATER (MCA §85-2-316(1)(1993); ARM 36.16.107B(1)(a)).**

1. The City of Plentywood is an incorporated municipality and a subdivision of the State of Montana (Plentywood Application. p. 1, (Pltywd-App.,); MCA §85-2-316(1); ARM 36.16.107B(1)(a)).

2. The City of Plentywood has applied for a water reservation of 235 acre-feet/year (af/y) of water with a maximum diversion rate of .72 millions gallons a day (mgd) to be diverted from one groundwater well located 2000 ft., northwest of existing well number ten (Pltywd-App., p. 3).

3. The City of Plentywood requests a water reservation to meet future demands by municipal users (Pltywd-App., p. 1).

**B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY
THE CITY OF PLENTYWOOD (MCA §85-2-316(4)(a)(1993); ARM
36.16.107B(1)(b)).**

4. The City of Plentywood seeks to provide municipal water for future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply (Pltywd-App., p. 5).

5. The purpose of the reservation is to provide water for municipal uses (Pltywd-App., p. 1). Municipal uses are beneficial uses of water in Montana (MCA §85-2-102(2)(a), ARM 36.16.102(3); ARM 36.16.107B(1)(b)).

**C. FINDINGS ON THE NEED FOR THE WATER RESERVATION APPLIED FOR BY THE
CITY OF PLENTYWOOD (MCA §85-2-316(4)(a)(ii)(1993); ARM
36.16.107B(2)).**

6. The City has constructed ten wells historically, eight of those wells remain in service for municipal use. Over time, these wells will decrease in yield as perforations in the well screen plug with iron encrustation and bacteria growth. These wells will eventually require replacement (Pltywd-App., pp. 18-20).

7. A reservation is the only means to obtain an early priority date for water that will be needed to meet projected municipal growth. In the future, water may be appropriated by competing agricultural, industrial, and instream users (Pltywd-App., p. 6-7).

8. It is important that the City of Plentywood have a water reservation to meet future municipal water demands in order for the community to grow and develop (Pltywd-App., p. 6).

9. Competing water uses may prevent the City of Plentywood from obtaining or perfecting a water use permit in the future. Without a reservation, the City of Plentywood may have to go through a costly process of buying or condemning existing water rights to meet increasing demands (DEIS, p. 187).

10. The City of Plentywood could lose existing, unused water rights necessary for future beneficial uses in an adjudication between competing water users (Pltywd-App., p. 19).

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF PLENTYWOOD (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

11. The method of determining the amount of water requested for a water reservation by the City of Plentywood was based on the amount of water required to satisfy the needs of the historical peak population. Plentywood's historical peak population of 2,804 persons occurred in 1984 (Pltywd-App., p. 9).

12. The City of Plentywood's average water use rate is 200 gallons per capita per day (gpcd). The average rate of consumption for municipalities in the region is 250 gpcd (Pltywd-App., p. 11). The efficiencies associated with the municipal uses by the City of Plentywood are reasonable (ARM 36.16.107B(3)(b)).

13. No other cost-effective measure could be taken within the reservation term to increase the use efficiency by the City of Plentywood and lessen the amount of water required for the purpose of the reservation (ARM 36.16.107B(3)(b)).

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE CITY OF PLENTYWOOD IS IN THE PUBLIC INTEREST (MCA §85-2-316(4)(a)(iv)(1993); ARM 36.16.107B(4)).

14. Benefits of the City of Plentywood's water reservation were calculated on a willingness-to-pay basis. Communities in the Middle Missouri Basin consider \$3.00/1,000 gallons of water to be an upper limit of the willingness to pay (Pltywd-App., p. 31). Plentywood municipal users are currently paying \$.77/1,000 gallons (Pltywd-App., p. 31).

15. The additional water provided by the water reservation will cost approximately \$1.17/1,000 gallons of water. This rate is lower than the assumed upper limit of \$3.00/1000 gallons (Pltywd-App., p. 31).

16. The direct benefits of the City of Plentywood's water reservation exceed the direct costs (ARM 36.16.107B(4)(a)).

17. Indirect benefits of the City of Plentywood's reservation may include secondary economic benefits to the community and to the

state, expanding both the property and income tax base from increased population (Pltywd-App., p. 32).

18. Indirect costs of the reservation may include loss of opportunity for other development and increased administrative costs. While not quantified, these costs are minor (Pltywd-App., p. 31).

19. A groundwater-surface connection may exist between the City's well and the Big Muddy Creek alluvium (Pltywd-App., p. 13).

20. There is no significant adverse environmental impact associated with the use of the City of Plentywood's water reservation. The effects of individual municipal water reservation depletions on water quality have not been quantified, but should be very small. Resulting health risks have not been quantified. No other non-quantifiable benefits or costs were identified (Pltywd-App., p. 32).

21. Net benefits of granting the City of Plentywood's water reservation exceed the net benefits of not granting the water reservation and the project is economically feasible (ARM 36.16.107B(4)(b); ARM 36.16.102(9)).

22. The City of Plentywood identified two alternative sources of water for future development in addition to the proposed reservation. A surface water storage project requiring construction of a dam in a tributary drainage and a rural water system from the Culbertson treatment plant were reviewed (Pltywd-App., pp. 25-30). The two alternatives would not provide greater net benefits than the water reservation and are not reasonable (Pltywd-App., pp. 22-25; ARM 36.16.107B(4)(c)).

23. Failure to reserve water for future municipal use by the City of Plentywood is likely to result in an irretrievable loss of a resource development opportunity (Pltywd-App., p. 32; ARM 36.16.107B(4)(d)).

24. As conditioned, the City of Plentywood's water reservation will have no significant adverse impact to public health, welfare, or safety (ARM 36.16.107B(4)(e)).

F. OTHER FINDINGS RELATING TO BOARD DECISION (MCA §85-2-316(3)(B), (4)(a)(iv)(b), (5), (6), and (9)(e)(1993); ARM 36.16.107B(5) through (8)).

25. The water reservation by the City of Plentywood will be used entirely within the state and within the Missouri River Basin (Pltywd-App., p. 1; ARM 36.16.107B(5) and (6)).

26. The City of Plentywood has identified a management plan for the design, development, and administration of its water reservation (Pltywd-App., pp. 33-38).

27. The City of Plentywood is capable of exercising reasonable diligence towards feasibly financing the project and applying reservation water to beneficial use in accordance with the management plan (ARM 36.16.107B(7)).

28. The priority date of the City of Plentywood's water reservation is July 1, 1985 (MCA §85-2-331(4)).

29. The City of Plentywood and its groundwater reservation is located in the Big Muddy Creek alluvium upstream of the Fort Peck Indian Reservation (DEIS, p. 63).

30. The Fort Peck Montana Compact has established a schedule of instream flows for Big Muddy Creek and its tributaries. Existing streamflows on Big Muddy Creek are often insufficient to supply the tribe's compacted water right (Davis, Obj., Pre-filed Dir., p. 1).

31. As conditioned, the City of Plentywood's water reservation will not adversely affect any senior water rights (ARM 36.16.107B(8)).

III. CONCLUSIONS OF LAW

1. City of Plentywood is a qualified applicant for a water reservation (MCA §85-2-316(1)(1993)).

2. The purpose of the City of Plentywood's application is a beneficial use (MCA §85-2-316(4)(a)(i)(1993); ARM 36.16.107B(1)(b)).

3. The need for the City of Plentywood has been established. The City has established that there is a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its reservation (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

4. The methodologies and assumptions used by the City of Plentywood are suitable and accurate under present conditions (ARM 36.16.107B(3)(a)). As modified, the City of Plentywood has established the amount of water needed to fulfill its reservation (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

5. Based on a weighing and balancing of the evidence, the reservation by the City of Plentywood, as modified herein, is in the public interest (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(4)).

6. Lower Missouri River water reservations approved by the Board shall have a priority date of July 1, 1985 (MCA §85-2-331(4)). The Board may determine the relative priorities of all reservations (MCA §85-2-316(a)(e)).

7. The Board may grant, deny, modify, or condition any reservation applied for. In no case may the Board make a reservation for more than the amount applied for (MCA §85-2-316).

8. The Board has no authority under the reservation statutes or any other statutes to determine, or alter, any water right that is not a reservation (MCA §85-2-316(14)).

IV. ORDER

1. Subject to all applicable modifications, conditions, and limitations (including but not limited to the conditions applied to consumptive use reservations in Exhibit A attached to this Order), the application of the City of Plentywood is granted for the following amount and flow of water: 235 acre feet per year at a rate of .72 million gallons per day.

2. The point of diversion and place of use are set forth in the reservation application of the City of Plentywood and by reference are made a part of this Order.

3. If at anytime in the future after this project is in place and when Fort Peck tribal instream flows on Big Muddy Creek cannot be met, then a call on Big Muddy Creek may be placed by the Fort Peck Tribes which may be enforced against this reservation.

4. Relative to other reservations, the priority date of this reservation shall be ahead of any other non-municipal reservation granted with a priority date of July 1, 1985. The reservation shall have equal priority with all other reservations granted to all municipalities.

5. Any and all liability arising from the reservation or the use of the reservation is the sole responsibility of the applicant. By granting such reservations, the Board, on behalf of itself and the Department of Natural Resources and Conservation, assumes no liability.

Application of the City of Poplar
Water Reservation No. 40Q L084488-00

II. FINDINGS OF FACT

A. FINDINGS ON THE QUALIFICATIONS OF THE CITY OF POPLAR TO RESERVE WATER (MCA §85-2-316(1) (1993); ARM 36.16.107B(1)(a)).

1. The City of Poplar is an incorporated municipality and a subdivision of the State of Montana (Poplar Application (Pplr-App.) p. 1; MCA §85-2-316(1); ARM 36.16.107B(1)(a)).

2. The City of Poplar has applied for a water reservation of 448 acre-feet/year (af/y) of water with a maximum diversion rate of 1.44 millions gallons a day (mgd) to be diverted from two groundwater wells located west of existing wells 3, 4, & 5 (Pplr-App., p. 3).

3. The City of Poplar requests a water reservation to meet future demands by municipal users (Pplr-App., p. 1).

B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY THE CITY OF POPLAR (MCA §85-2-316(4)(a) (1993); ARM 36.16.107B(1)(b)).

4. The City of Poplar seeks to provide municipal water for future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply (Pplr-App., p. 5).

5. The purpose of the reservation is to provide water for municipal uses (Pplr-App., p. 1). Municipal uses are beneficial uses of water in Montana (MCA §85-2-102(2)(a), ARM 36.16.102(3); ARM 36.16.107B(1)(b)).

C. FINDINGS ON THE NEED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF POPLAR (MCA §85-2-316(4)(a)(ii) (1993); ARM 36.16.107B(2)).

6. The City has constructed five wells historically, three of those wells remain in service for municipal use. Over time, these wells will continue to decrease in yield as perforations in the well screen plug with iron encrustation and bacteria growth. These wells will eventually require replacement (Pplr-App., pp. 18-20).

7. A reservation is the only means to obtain an early priority date for water that will be needed to meet projected municipal growth. In the future, water may be appropriated by competing agricultural, industrial, and instream users (Pplr-App., p. 5-6).

8. It is important that the City of Poplar have a water reservation to meet future municipal water demands in order for the community to grow and develop (Pplr-App., p. 5).

9. Competing water uses may prevent the City of Poplar from obtaining or perfecting a water use permit in the future. Without a reservation, the City of Poplar may have to go through a costly process of buying or condemning existing water rights to meet increasing demands (DEIS, p. 187).

10. The City of Poplar could lose existing, unused water rights necessary for future beneficial uses in an adjudication between competing water users (Pplr-App., p. 19-20).

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF POPLAR (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

11. The method of determining the amount of water requested for a water reservation by the City of Poplar was based on a forecast of its future population using National Planning Association data. This information along with the estimated amount of water used per person was projected to the year 2035 to determine the reservation amount (Pplr-App., p. 7).

12. The Tribal Housing Authority is expected to continue developing housing units that will require city services. Current planning projections indicate construction of 45 units per year for the next three years (Pplr-App., p. 10).

13. The City of Poplar's average water use rate is 116 gallons per capita per day (gpcd). The usage rate for other municipalities in the region is 250 gpcd (Pplr-App., p. 16). The efficiencies associated with the municipal uses by the City of Poplar are reasonable (ARM 36.16.107B(3)(b)).

14. No other cost-effective measure could be taken within the reservation term to increase the use efficiency by the City of Poplar and lessen the amount of water required for the purpose of the reservation (ARM 36.16.107B(3)(b)).

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE CITY OF POPLAR IS IN THE PUBLIC INTEREST (MCA §85-2-316(4)(a)(iv)(1993); ARM 36.16.107B(4)).

15. Benefits of the City of Poplar's water reservation were calculated on a willingness-to-pay basis. Communities in the Middle Missouri Basin consider \$3.00/1,000 gallons of water to be an upper limit of the willingness to pay (Pplr-App., p. 29). Poplar municipal users are currently paying \$1.15/1,000 gallons (Pplr-App., p. 30).

16. The additional water provided by the water reservation will cost approximately \$.42/1,000 gallons of water. This rate is lower than the assumed upper limit of \$3.00/1,000 gallons (Pplr-App., p. 30).

17. The direct benefits of the City of Poplar's water reservation exceed the direct costs (ARM 36.16.107B(4)(a)).

18. Indirect benefits of the City of Poplar's reservation may include secondary economic benefits to the community and to the state, expanding both the property and income tax base from increased population (Pplr-App., p. 30).

19. Indirect costs of the reservation may include loss of opportunity for other development and increased administrative costs. While not quantified, these costs are minor (Pplr-App., p. 30).

20. There is no significant adverse environmental impact associated with the use of the City of Poplar's water reservation. The effects of individual municipal water reservation depletions on water quality have not been quantified, but should be very small. Resulting health risks have not been quantified. No other non-quantifiable benefits or costs were identified (Pplr-App., p. 31).

21. Net benefits of granting the City of Poplar's water reservation exceed the net benefits of not granting the water reservation and the project is economically feasible (ARM 36.16.107B(4)(b); ARM 36.16.102(9)).

22. The City of Poplar identified two alternative sources of water for future development in addition to the proposed reservation. A surface water diversion from the Poplar River and a Ranney well system adjacent to and beneath the Poplar River were also reviewed. The two alternatives would not provide greater net benefits than the water reservation and are not reasonable (Pplr-App., pp. 24-29); ARM 36.16.107B(4)(c)).

23. Failure to reserve water for future municipal use by the City of Poplar is likely to result in an irretrievable loss of a resource development opportunity (Pplr-App., p. 31; ARM 36.16.107B(4)(d)).

24. As conditioned, the City of Poplar's water reservation will have no significant adverse impact to public health, welfare, or safety (ARM 36.16.107B(4)(e)).

F. OTHER FINDINGS RELATING TO BOARD DECISION (MCA §85-2-316(3)(B), (4)(a)(iv)(b), (5), (6), and (9)(e)(1993); ARM 36.16.107B(5) through (8)).

25. The water reservation by the City of Poplar will be used entirely within the state and within the Missouri River Basin (Pplr-App., p. 1; ARM 36.16.107B(5) and (6)).

26. The Fort Peck Indian Tribes have negotiated and compacted their water rights under the Fort Peck Montana Compact. Though

located within the boundaries of Fort Peck Indian Reservation, the City of Poplar is not a tribal entity (Davis, pre-filed, Obj., p. 1).

27. The City of Poplar has identified a management plan for the design, development, and administration of its water reservation (Pplr-App., pp. 33-38).

28. The City of Poplar is capable of exercising reasonable diligence towards feasibly financing the project and applying reservation water to beneficial use in accordance with the management plan (ARM 36.16.107B(7)).

29. The priority date of the City of Poplar's water reservation is July 1, 1985 (MCA §85-2-331(4)).

30. As conditioned, the City of Poplar's water reservation will not adversely affect any senior water rights (ARM 36.16.107B(8)).

III. CONCLUSIONS OF LAW

1. City of Poplar is a qualified applicant for a water reservation (MCA §85-2-316(1)(1993)).

2. The purpose of the City of Poplar's application is a beneficial use (MCA §85-2-316(4)(a)(i)(1993); ARM 36.16.107B(1)(b)).

3. The need for the City of Poplar has been established. The City has established that there is a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its reservation (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

4. The methodologies and assumptions used by the City of Poplar are suitable and accurate under present conditions (ARM 36.16.107B(3)(a)). As modified, the City of Poplar has established the amount of water needed to fulfill its reservation (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

5. Based on a weighing and balancing of the evidence, the reservation by the City of Poplar, as modified herein, is in the public interest (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(4)).

6. Lower Missouri River water reservations approved by the Board shall have a priority date of July 1, 1985 (MCA §85-2-331(4)). The Board may determine the relative priorities of all reservations (MCA §85-2-316(a)(e)).

7. The Board may grant, deny, modify, or condition any reservation applied for. In no case may the Board make a reservation for more than the amount applied for (MCA §85-2-316).

8. The Board has no authority under the reservation statutes or any other statutes to determine, or alter, any water right that is not a reservation (MCA §85-2-316(14)).

IV. ORDER

1. Subject to all applicable modifications, conditions, and limitations (including but not limited to the conditions applied to consumptive use reservations in Exhibit A attached to this Order), the application of the City of Poplar is granted for the following amount and flow of water: 448 acre feet per year at a rate of 1.44 million gallons per day.

2. The quantity of water reserved to the city of Poplar is not in any way a measurable portion of the Fort Peck Tribes' compacted water right.

3. The point of diversion and place of use are set forth in the reservation application of the City of Poplar and by reference are made a part of this Order.

4. Relative to other reservations, the priority date of this reservation shall be ahead of any other non-municipal reservation granted with a priority date of July 1, 1985. The reservation shall have equal priority with all other reservations granted to all municipalities.

5. Any and all liability arising from the reservation or the use of the reservation is the sole responsibility of the applicant. By granting such reservations, the Board, on behalf of itself and the Department of Natural Resources and Conservation, assumes no liability.

**Application of the City of Scobey
Water Reservation No. 40Q L077647-00**

II. FINDINGS OF FACT

A. FINDINGS ON THE QUALIFICATIONS OF THE CITY OF SCOBEEY TO RESERVE WATER (MCA §85-2-316(1)(1993); ARM 36.16.107B(1)(a)).

1. The City of Scobey is an incorporated municipality and a subdivision of the State of Montana (Scby-App., p. 1; MCA §85-2-316(1); ARM 36.16.107B(1)(a)).

2. The City of Scobey has applied for a water reservation of 168 acre-feet/year (af/y) of water with a maximum diversion rate of .72 millions gallons a day (mgd) to be diverted from one groundwater well located northwest of existing municipal wells (Scby-App., p. 3).

3. The City of Scobey requests a water reservation to meet future demands by municipal users (Scby-App., p. 1).

B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY THE CITY OF SCOBEEY (MCA §85-2-316(4)(a)(1993); ARM 36.16.107B(1)(b)).

4. The City of Scobey seeks to provide municipal water for future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply (Scby-App., p. 5).

5. The purpose of the reservation is to provide water for municipal uses (Scby-App., p. 1). Municipal uses are beneficial uses of water in Montana (MCA §85-2-102(2)(a); ARM 36.16.102(3); ARM 36.16.107B(1)(b)).

C. FINDINGS ON THE NEED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF SCOBEEY (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

6. The City has constructed five wells historically, three of those wells remain in service for municipal use. Over time, these wells will decrease in yield as perforations in the well screen plug with iron encrustation and bacteria growth. These wells will eventually require replacement (Scby-App., pp. 17-19).

7. A reservation is the only means to obtain an early priority date for water that will be needed to meet projected municipal growth. In the future, water may be appropriated by competing agricultural, industrial, and instream users (Scby-App., p. 5-6).

8. It is important that the City of Scobey have a water reservation to meet future municipal water demands in order for the community to grow and develop (Scby-App., p. 5).

9. Competing water uses may prevent the City of Scobey from obtaining or perfecting a water use permit in the future. Without a reservation, the City of Scobey may have to go through a costly process of buying or condemning existing water rights to meet increasing demands (DEIS, p. 187).

10. The City of Scobey could lose existing, unused water rights necessary for future beneficial uses in an adjudication between competing water users (Scby-App., p. 18-19).

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF SCOBEEY (MCA §85-2-316(4)(a)(iii) (1993); ARM 36.16.107B(3)).

11. The method of determining the amount of water requested for a water reservation by the City of Scobey was based on the amount of water required to satisfy the needs of the historical peak population. Scobey's historical peak population of 1,726 persons occurred in 1960 (Scobey App., p. 9).

12. Evidence indicates that demand for services in Scobey will increase in the future. In the spring of 1994, Nemont Telephone, located in Scobey, increased their employee pool from fifty-seven persons to one hundred twenty-one. In addition, there is currently a feasibility study underway to investigate the potential sighting of an Ethanol plant in Scobey (Audet, App., Pre-filed Dir., p.1).

13. The City of Scobey's average water use rate is 215 gallons per capita per day (gpcd). The typical usage rate for communities in the region is 250 gpcd (Scby-App., p. 12). The efficiencies associated with the municipal uses by the City of Scobey are reasonable (ARM 36.16.107B(3)(b)).

14. No other cost-effective measure could be taken within the reservation term to increase the use efficiency by the City of Scobey and lessen the amount of water required for the purpose of the reservation (ARM 36.16.107B(3)(b)).

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE CITY OF SCOBEEY IS IN THE PUBLIC INTEREST (MCA §85-2-316(4)(a)(iv) (1993); ARM 36.16.107B(4)).

15. Benefits of the City of Scobey's water reservation were calculated on a willingness-to-pay basis. Communities in the Middle Missouri Basin consider \$3.00/1,000 gallons of water to be an upper limit of the willingness to pay (Scby-App., p. 29). Scobey municipal users are currently paying \$1.45/1,000 gallons (Scby-App., p. 28).

16. The additional water provided by the water reservation will cost approximately \$.76/1,000 gallons of water. This rate is lower than the assumed upper limit of \$3.00/1000 gallons (Scby-App., p. 28).

17. The direct benefits of the City of Scobey's water reservation exceed the direct costs (ARM 36.16.107B(4)(a)).

18. Indirect benefits of the City of Scobey's reservation may include secondary economic benefits to the community and to the state, expanding both the property and income tax base from increased population (Scby-App., p. 28).

19. Indirect costs of the reservation may include loss of opportunity for other development and increased administrative costs. While not quantified, these costs are minor (Scby-App., p. 28).

20. A groundwater-surface connection may exist between the city's wells and the Poplar River alluvium (Scby-App., p. 14).

21. There is no significant adverse environmental impact associated with the use of the City of Scobey's water reservation. The effects of individual municipal water reservation depletions on water quality have not been quantified, but should be very small. Resulting health risks have not been quantified. No other non-quantifiable benefits or costs were identified (Scby-App., p. 29).

22. Net benefits of granting the City of Scobey's water reservation exceed the net benefits of not granting the water reservation and the project is economically feasible (ARM 36.16.107B(4)(b); ARM 36.16.102(9)).

23. The City of Scobey identified two alternative sources of water for future development in addition to the proposed reservation. A bedrock well in the Hell Creek Formation and a Ranney well system adjacent to and beneath the Poplar River were also reviewed. The two alternatives would not provide greater net benefits than the water reservation and are not reasonable (Scby-App., pp. 22-28; ARM 36.16.107B(4)(c)).

24. Failure to reserve water for future municipal use by the City of Scobey is likely to result in an irretrievable loss of a resource development opportunity (Scby-App., p. 29; ARM 36.16.107B(4)(d)).

25. As conditioned, the City of Scobey's water reservation will have no significant adverse impact to public health, welfare, or safety (ARM 36.16.107B(4)(e)).

F. OTHER FINDINGS RELATING TO BOARD DECISION (MCA §85-2-316(3)(B), (4)(a)(iv)(b), (5), (6), and (9)(e) (1993); ARM 36.16.107B(5) through (8)).

26. The water reservation by the City of Scobey will be used entirely within the state and within the Missouri River Basin (Scby-App., p. 1; ARM 36.16.107B(5) and (6)).

27. The City of Scobey has identified a management plan for the design, development, and administration of its water reservation (Scby-App., pp. 30-35).

28. The City of Scobey is capable of exercising reasonable diligence towards feasibly financing the project and applying reservation water to beneficial use in accordance with the management plan (ARM 36.16.107B(7)).

29. The priority date of the City of Scobey's water reservation is July 1, 1985 (MCA §85-2-331(4)).

30. The City of Scobey and its groundwater reservation is located in the Poplar River alluvium, upstream of the Fort Peck Indian Reservation (DEIS, p. 63).

31. The Fort Peck Montana Compact has established a schedule of instream flows for the Poplar River and its tributaries. Existing streamflows in the Poplar River are often insufficient to supply the tribe's compacted water right (Davis, Obj., Pre-filed Dir., p. 1).

32. As conditioned, the City of Scobey's water reservation will not adversely affect any senior water rights (ARM 36.16.107B(8)).

III. CONCLUSIONS OF LAW

1. City of Scobey is a qualified applicant for a water reservation (MCA §85-2-316(1)(1993)).

2. The purpose of the City of Scobey's application is a beneficial use (MCA §85-2-316(4)(a)(i)(1993); ARM 36.16.107B(1)(b)).

3. The need for the City of Scobey has been established. The City has established that there is a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its reservation (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

4. The methodologies and assumptions used by the City of Scobey are suitable and accurate under present conditions (ARM 36.16.107B(3)(a)). As modified, the City of Scobey has established the amount of water needed to fulfill its reservation (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

5. Based on a weighing and balancing of the evidence, the reservation by the City of Scobey, as modified herein, is in the public interest (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(4)).

6. Lower Missouri River water reservations approved by the Board shall have a priority date of July 1, 1985 (MCA §85-2-331(4)). The Board may determine the relative priorities of all reservations (MCA §85-2-316(a)(e)).

7. The Board may grant, deny, modify, or condition any reservation applied for. In no case may the Board make a reservation for more than the amount applied for (MCA §85-2-316).

8. The Board has no authority under the reservation statutes or any other statutes to determine, or alter, any water right that is not a reservation (MCA §85-2-316(14)).

IV. ORDER

1. Subject to all applicable modifications, conditions, and limitations (including but not limited to the conditions applied to consumptive use reservations in Exhibit A attached to this Order), the application of the City of Scobey is granted for the following amount and flow of water: 168 acre feet per year at a rate of .72 million gallons per day.

2. The point of diversion and place of use are set forth in the reservation application of the City of Scobey and by reference are made a part of this Order.

3. If at anytime in the future after this project is in place and when Fort Peck tribal instream flows on the Poplar River cannot be met, then a call on the Poplar River may be placed by the Fort Peck Tribes which may be enforced against this reservation.

4. Relative to other reservations, the priority date of this reservation shall be ahead of any other non-municipal reservation granted with a priority date of July 1, 1985. The reservation shall have equal priority with all other reservations granted to all municipalities.

5. Any and all liability arising from the reservation or the use of the reservation is the sole responsibility of the applicant. By granting such reservations, the Board, on behalf of itself and the Department of Natural Resources and Conservation, assumes no liability.

**Application of the City of Wibaux
Water Reservation No. 39G L084484-00**

II. FINDINGS OF FACT

A. FINDINGS ON THE QUALIFICATIONS OF THE CITY OF WIBAUX TO RESERVE WATER (MCA §85-2-316(1)(1993); ARM 36.16.107B(1)(a)).

1. The City of Wibaux is an incorporated municipality and a subdivision of the State of Montana (Wibuax Application (Wbx-App.) p. 1; MCA §85-2-316(1); ARM 36.16.107B(1)(a)).

2. The City of Wibaux has applied for a water reservation of 71 acre-feet/year (af/y) of water with a maximum diversion rate of 2.52 millions gallons a day (mgd) to be diverted from one municipal groundwater well. Wibaux also requests a reservation of 4 af/y with a maximum diversion of .036 mgd to be diverted from one shallow, alluvial well for park irrigation (Wbx-App., p. 3).

3. The City of Wibaux requests a water reservation to meet future demands by municipal users (Wbx-App., p. 1).

B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY THE CITY OF WIBAUX (MCA §85-2-316(4)(a)(1993); ARM 36.16.107B(1)(b)).

4. The City of Wibaux seeks to provide municipal water for future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply (Wbx-App., p. 5).

5. The purpose of the reservation is to provide water for municipal uses (Wbx-App., p. 1). Municipal uses are beneficial uses of water in Montana (MCA §85-2-102(2)(a); ARM 36.16.102(3); ARM 36.16.107B(1)(b)).

C. FINDINGS ON THE NEED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF WIBAUX (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

6. The City has constructed six wells historically, two provide service for municipal use and three provide irrigation service. Over time, these wells will continue to decrease in yield as perforations in the well screen plug with iron encrustation and bacteria growth. These wells will eventually require replacement (Wbx-App., pp. 18-19).

7. A reservation is the only means to obtain an early priority date for water that will be needed to meet projected municipal growth. In the future, water may be appropriated by competing agricultural, industrial, and instream users (Wbx-App., p. 5-6).

8. It is important that the City of Wibaux have a water reservation to meet future municipal water demands in order for the community to grow and develop (Wbx-App., p. 5).

9. Competing water uses may prevent the City of Wibaux from obtaining or perfecting a water use permit in the future. Without a reservation, the City of Wibaux may have to go through a costly process of buying or condemning existing water rights to meet increasing demands (DEIS, p. 187).

10. The City of Wibaux could lose existing, unused water rights necessary for future beneficial uses in an adjudication between competing water users (Wbx-App., p. 19).

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF WIBAUX (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

11. The method of determining the amount of water requested for a water reservation by the City of Wibaux was based on the amount of water required to satisfy the needs of the historical peak population. Wibaux's historical peak population of 782 persons occurred in 1980 (Wibaux App., p. 9).

12. The City of Wibaux's average water use rate is 94 gallons per capita per day (gpcd) (Wbx-App., p. 11). The efficiencies associated with the municipal uses by the City of Wibaux are reasonable (ARM 36.16.107B(3)(b)).

13. No other cost-effective measure could be taken within the reservation term to increase the use efficiency by the City of Wibaux and lessen the amount of water required for the purpose of the reservation (ARM 36.16.107B(3)(b)).

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE CITY OF WIBAUX IS IN THE PUBLIC INTEREST (MCA §85-2-316(4)(a)(iv)(1993); ARM 36.16.107B(4)).

14. Benefits of the City of Wibaux's water reservation were calculated on a willingness-to-pay basis. Communities in the Middle Missouri Basin consider \$3.00/1,000 gallons to be an upper limit of the willingness to pay (Wbx-App., p. 29). Wibaux municipal users are currently paying \$1.94/1,000 gallons (Wbx-App., p. 28).

15. The additional water provided by the water reservation will cost approximately \$3.08/1,000 gallons of water. Projected rates accounting for the current supply plus reservation water is \$2.54/1,000 gallons. This rate is lower than the \$3.00/1,000 gallons of water which is the assumed upper limit of the willingness to pay (Wbx-App., p. 30).

16. The direct benefits of the City of Wibaux's water reservation exceed the direct costs (ARM 36.16.107B(4)(a)).

17. Indirect benefits of the City of Wibaux's reservation may include secondary economic benefits to the community and to the state,

expanding both the property and income tax base from increased population (Wbx-App., p. 31).

18. Indirect costs of the reservation may include loss of opportunity for other development and increased administrative costs. While not quantified, these costs are minor (Wbx-App., p. 30).

19. There is no significant adverse environmental impact associated with the use of the City of Wibaux's water reservation. The effects of individual municipal water reservation depletions on water quality have not been quantified, but should be very small. Resulting health risks have not been quantified. No other non-quantifiable benefits or costs were identified (Wbx-App., p. 31).

20. Net benefits of granting the City of Wibaux's water reservation exceed the net benefits of not granting the water reservation and the project is economically feasible (ARM 36.16.107B(4)(b); ARM 36.16.102(9)).

21. The City of Wibaux identified two alternative sources of water for future development in addition to the proposed reservation. Plans for several shallow alluvial wells and a surface water storage system requiring dam construction in a tributary drainage were reviewed. The two alternatives would not provide greater net benefits than the water reservation and are not reasonable (Wbx-App., pp. 23-28); ARM 36.16.107B(4)(c)).

22. Failure to reserve water for future municipal use by the City of Wibaux is likely to result in an irretrievable loss of a resource development opportunity (Wbx-App., p. 31; ARM 36.16.107B(4)(d)).

23. As conditioned, the City of Wibaux's water reservation will have no significant adverse impact to public health, welfare, or safety (ARM 36.16.107B(4)(e)).

F. OTHER FINDINGS RELATING TO BOARD DECISION (MCA §85-2-316(3)(B), (4)(a)(iv)(b), (5), (6), and (9)(e)(1993); ARM 36.16.107B(5) through (8)).

24. The water reservation by the City of Wibaux will be used entirely within the state and within the Missouri River Basin (Wbx-App., p. 1; ARM 36.16.107B(5) and (6)).

25. The City of Wibaux has identified a management plan for the design, development, and administration of its water reservation (Wbx-App., pp. 32-38).

26. The City of Wibaux is capable of exercising reasonable diligence towards feasibly financing the project and applying reservation water to beneficial use in accordance with the management plan (ARM 36.16.107B(7)).

27. The priority date of the City of Wibaux's water reservation is July 1, 1989 (MCA §85-2-331(4)).

28. As conditioned, the City of Wibaux's water reservation will not adversely affect any senior water rights (ARM 36.16.107B(8)).

III. CONCLUSIONS OF LAW

1. City of Wibaux is a qualified applicant for a water reservation (MCA §85-2-316(1)(1993)).

2. The purpose of the City of Wibaux's application is a beneficial use (MCA §85-2-316(4)(a)(i)(1993); ARM 36.16.107B(1)(b)).

3. The need for the City of Wibaux has been established. The City has established that there is a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its reservation (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

4. The methodologies and assumptions used by the City of Wibaux are suitable and accurate under present conditions (ARM 36.16.107B(3)(a)). As modified, the City of Wibaux has established the amount of water needed to fulfill its reservation (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

5. Based on a weighing and balancing of the evidence, the reservation by the City of Wibaux, as modified herein, is in the public interest (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(4)).

6. Little Missouri River water reservations approved by the Board shall have a priority date of July 1, 1989 (MCA §85-2-331(4)). The Board may determine the relative priorities of all reservations (MCA §85-2-316(a)(e)).

7. The Board may grant, deny, modify, or condition any reservation applied for. In no case, may the Board make a reservation for more than the amount applied for (MCA §85-2-316).

8. The Board has no authority under the reservation statutes or any other statutes to determine, or alter, any water right that is not a reservation (MCA §85-2-316(14)).

IV. ORDER

1. Subject to all applicable modifications, conditions, and limitations (including but not limited to the conditions applied to consumptive use reservations in Exhibit A attached to this Order), the application of the City of Wibaux is granted for the following amount and flow of water: 75 acre feet per year at a rate of .288 million gallons per day.

2. The points of diversion and places of use are set forth in the reservation application City of Wibaux and by reference are made a part of this Order.

3. Relative to other reservations, the priority date of this reservation shall be ahead of any other non-municipal reservation granted with a priority date of July 1, 1989. The reservation shall have equal priority with all other reservations granted to all municipalities.

4. Any and all liability arising from the reservation or the use of the reservation is the sole responsibility of the applicant. By granting such reservations, the Board, on behalf of itself and the Department of Natural Resources and Conservation, assumes no liability.

**Application of the City of Wolf Point
Water Reservation No. 40S L084482-00**

II. FINDINGS OF FACT

**A. FINDINGS ON THE QUALIFICATIONS OF THE CITY OF WOLF POINT TO
RESERVE WATER (MCA §85-2-316(1)(1993); ARM 36.16.107B(1)(a)).**

1. The City of Wolf Point is an incorporated municipality and a subdivision of the State of Montana (Wolf Point Application (WlfPt-App.) p. 1; MCA §85-2-316(1); ARM 36.16.107B(1)(a)).

2. The City of Wolf Point has applied for a water reservation of 504 acre-feet/year (af/y) of water with a maximum diversion rate of 1.44 millions gallons a day (mgd) to be diverted from two groundwater wells located near existing wells numbered seven, eight, & nine (WlfPt-App., p. 3).

3. The City of Wolf Point requests a water reservation to meet future demands by municipal users (WlfPt-App., p. 1).

**B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY
THE CITY OF WOLF POINT (MCA §85-2-316(4)(a)(1993); ARM
36.16.107B(1)(b)).**

4. The City of Wolf Point seeks to provide municipal water for future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply (WlfPt-App., p. 5).

5. The purpose of the reservation is to provide water for municipal uses (WlfPt-App., p. 1). Municipal uses are beneficial uses of water in Montana (MCA §85-2-102(2)(a); ARM 36.16.102(3); ARM 36.16.107B(1)(b)).

**C. FINDINGS ON THE NEED FOR THE WATER RESERVATION APPLIED FOR BY THE
CITY OF WOLF POINT (MCA §85-2-316(4)(a)(ii)(1993); ARM
36.16.107B(2)).**

6. The City has constructed nine wells historically, of which four remain in service. Wells seven, eight, and nine are used as the primary municipal source. Over time, these wells will continue to decrease in yield as perforations in the well screen plug with iron encrustation and bacteria growth. These wells will eventually require replacement (WlfPt-App., pp. 19-20).

7. A reservation is the only means to obtain an early priority date for water that will be needed to meet projected municipal growth. In the future, water may be appropriated by competing agricultural, industrial, and instream users (WlfPt-App., p. 5-6).

8. It is important that the City of Wolf Point have a water reservation to meet future municipal water demands in order for the community to grow and develop (WlfPt-App., p. 5).

9. Competing water uses may prevent the City of Wolf Point from obtaining or perfecting a water use permit in the future. Without a reservation, the City of Wolf Point may have to go through a costly process of buying or condemning existing water rights to meet increasing demands (DEIS, p. 187).

10. The City of Wolf Point could lose existing, unused water rights necessary for future beneficial uses in an adjudication between competing water users (WlfPt-App., p. 19-20).

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF WOLF POINT (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

11. The method of determining the amount of water requested for a water reservation by the City of Wolf Point was based on a forecast of its future population using National Planning Association data. This information along with the estimated amount of water used per person was projected to the year 2035 to determine the reservation amount (WlfPt-App., pp. 7-9).

12. The Tribal Housing Authority is expected to continue developing housing units outside the city limits that will require city services (WlfPt-App., p. 11).

13. The City of Wolf Point's average water use rate is 172 gallons per capita per day (gpcd). The average use rate for communities in the region is 250 gpcd (WlfPt-App., p. 16). The efficiencies associated with the municipal uses by the City of Wolf Point are reasonable (ARM 36.16.107B(3)(b)).

14. No other cost-effective measure could be taken within the reservation term to increase the use efficiency by the City of Wolf Point and lessen the amount of water required for the purpose of the reservation (ARM 36.16.107B(3)(b)).

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE CITY OF WOLF POINT IS IN THE PUBLIC INTEREST (MCA §85-2-316(4)(a)(iv)(1993); ARM 36.16.107B(4)).

15. Benefits of the City of Wolf Point's water reservation were calculated on a willingness-to-pay basis. Communities in the Middle Missouri Basin consider \$3.00/1,000 gallons of water to be an upper limit of the willingness to pay (WlfPt-App., p. 31). Wolf Point municipal users are currently paying \$1.02/1,000 gallons (WlfPt-App., p. 31).

16. The additional water provided by the water reservation will cost approximately \$.36/1,000 gallons of water. This rate is lower than \$3.00/1000 gallons of water which is the assumed upper limit of the willingness to pay (WlfPt-App., p. 31).

17. The direct benefits of the City of Wolf Point's water reservation exceed the direct costs (ARM 36.16.107B(4)(a)).

18. Indirect benefits of the City of Wolf Point's reservation may include secondary economic benefits to the community and to the state, expanding both the property and income tax base from increased population (WlfPt-App., p. 31).

19. Indirect costs of the reservation may include loss of opportunity for other development and increased administrative costs. While not quantified, these costs are minor (WlfPt-App., p. 31).

20. There is no significant adverse environmental impact associated with the use of the City of Wolf Point's water reservation. The effects of individual municipal water reservation depletions on water quality have not been quantified, but should be very small. Resulting health risks have not been quantified. No other non-quantifiable benefits or costs were identified (WlfPt-App., p. 32).

21. Net benefits of granting the City of Wolf Point's water reservation exceed the net benefits of not granting the water reservation and the project is economically feasible (ARM 36.16.107B(4)(b); ARM 36.16.102(9)).

22. The City of Wolf Point identified two alternative sources of water for future development in addition to the proposed reservation. A surface water diversion from the Missouri River and a Ranney well system adjacent to and beneath the Missouri River were also reviewed. The two alternatives would not provide greater net benefits than the water reservation and are not reasonable (WlfPt-App., pp. 25-30; ARM 36.16.107B(4)(c)).

23. Failure to reserve water for future municipal use by the City of Wolf Point is likely to result in an irretrievable loss of a resource development opportunity (WlfPt-App., p. 32; ARM 36.16.107B(4)(d)).

24. As conditioned, the City of Wolf Point's water reservation will have no significant adverse impact to public health, welfare, or safety (ARM 36.16.107B(4)(e)).

F. OTHER FINDINGS RELATING TO BOARD DECISION (MCA §85-2-316(3)(B), (4)(a)(iv)(b), (5), (6), and (9)(e)(1993); ARM 36.16.107B(5) through (8)).

25. The water reservation by the City of Wolf Point will be used entirely within the state and within the Missouri River Basin (WlfPt-App., p. 1; ARM 36.16.107B(5) and (6)).

26. The Fort Peck Indian Tribes have negotiated and compacted their water rights under the Fort Peck Montana Compact. Although located within the boundaries of the Fort Peck Indian Reservation, the City of Wolf Point is not a tribal entity (Davis, Obj., Pre-filed Dir., p. 1).

27. The City of Wolf Point has identified a management plan for the design, development, and administration of its water reservation (WlfPt-App., pp. 33-39).

28. The City of Wolf Point is capable of exercising reasonable diligence towards feasibly financing the project and applying reservation water to beneficial use in accordance with the management plan (ARM 36.16.107B(7)).

29. The priority date of the City of Wolf Point's water reservation is July 1, 1985 (MCA §85-2-331(4)).

30. As conditioned, the City of Wolf Point's water reservation will not adversely affect any senior water rights (ARM 36.16.107B(8)).

III. CONCLUSIONS OF LAW

1. City of Wolf Point is a qualified applicant for a water reservation (MCA §85-2-316(1)(1993)).

2. The purpose of the City of Wolf Point's application is a beneficial use (MCA §85-2-316(4)(a)(i)(1993); ARM 36.16.107B(1)(b)).

3. The need for the City of Wolf Point has been established. The City has established that there is a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its reservation (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2)).

4. The methodologies and assumptions used by the City of Wolf Point are suitable and accurate under present conditions (ARM 36.16.107B(3)(a)). As modified, the City of Wolf Point has established the amount of water needed to fulfill its reservation (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3)).

5. Based on a weighing and balancing of the evidence, the reservation by the City of Wolf Point, as modified herein, is in the public interest (MCA §85-2-316(4)(a)(iv); ARM 36.16.107B(4)).

6. Lower Missouri River water reservations approved by the Board shall have a priority date of July 1, 1985 (MCA §85-2-331(4)). The Board may determine the relative priorities of all reservations (MCA §85-2-316(a)(e)).

7. The Board may grant, deny, modify, or condition any reservation applied for. In no case may the Board make a reservation for more than the amount applied for (MCA §85-2-316).

8. The Board has no authority under the reservation statutes or any other statutes to determine, or alter, any water right that is not a reservation (MCA §85-2-316(14)).

IV. ORDER

1. Subject to all applicable modifications, conditions, and limitations (including but not limited to the conditions applied to consumptive use reservations in Exhibit A attached to this Order), the application of the City of Wolf Point is granted for the following amount and flow of water: 504 acre feet per year at a rate of 1.44 million gallons per day.

2. The point of diversion and place of use are set forth in the reservation application of the City of Wolf Point and by reference are made a part of this Order.

3. The quantity of water reserved to the City of Wolf Point is not in any way a measurable portion of the Fort Peck Tribes' compacted water right.

4. Relative to other reservations, the priority date of this reservation shall be ahead of any other non-municipal reservation granted with a priority date of July 1, 1985. The reservation shall have equal priority with all other reservations granted to all municipalities.

5. Any and all liability arising from the reservation or the use of the reservation is the sole responsibility of the applicant. By granting such reservations, the Board, on behalf of itself and the Department of Natural Resources and Conservation, assumes no liability.